



Graduate Calendar
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The we version of the calendar is the niversity s official Graduate calendar

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Visitors to the site may search for program and course information via:
• the Programs of Study link,
• the Departmental Listings, or
• the Search Engine
all of which are located in the Table of Contents on left-hand column of the website.

Academic regulations, application procedures, and other information are also accessible via the links provided in the Table of Contents.

F D R T D D FF T D STT TO S
Assumption University
Canterbury College
Iona College

The University is a full member of

THE ASSOCIATION OF UNIVERSITIES AND COLLEGES OF CANADA
THE INTERNATIONAL ASSOCIATION OF UNIVERSITIES

Faculty

- Biological Sciences:
Programs

- Biological Sciences:
Courses

Odette School of Business:
Graduate Faculty

- Business: Programs

- Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

- Chemistry and Biochemistry:
Programs

- Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

- Communications Studies:
Programs

- Communication Studies:
Courses

Computer Science: Graduate
Faculty

- Computer Science:
Programs

- Computer Science: Courses

Earth Sciences: Graduate
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Programs of Study - Alphabetical Listing

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

Masters and/or Doctoral and/or Post-Doctoral programs are offered in the following areas of study. A Postdoctoral Certificate is also available in Adult Clinical Psychology.

B

[Biological Sciences](#) (MSc), (PhD)
Business Administration:
[Business Administration](#) (MBA) (Co-op/Non-Co-op available)
[Business Administration](#)(MBA) (Fast-Track)
[Business Administration](#) (MBA) (For Managers and Professionals)
[Business Administration](#)/Bachelor of Laws (Integrated MBA/LLB)

C

[Chemistry and Biochemistry](#) (MSc), (PhD)
[Civil Engineering](#) (MSc), (MEng), (PhD)
[Communication and Social Justice](#) (MA)
[Computer Science](#) (MSc), (PhD)

E

[Earth Sciences](#) (MSc), (PhD)
[Economics](#) (MA)
[Education](#) (MEd)
[Educational Studies](#) (Joint PhD program)
[Electrical Engineering](#) (MSc), (MEng), (PhD)
[Engineering Materials](#) (MSc), (MEng), (PhD)
[English](#) (MA)
[Environmental Engineering](#) (MSc), (MEng), (PhD)
[Environmental Science](#) (GLIER) (MSc, PhD)

H

[History](#) (MA)
[Human Kinetics](#) (MHK)

I

[Industrial Engineering](#) (MSc), (MEng)
[Industrial and Manufacturing Systems Engineering](#) (PhD)

M

[Mathematics](#) (MSc)
[Mathematics and Statistics](#) (PhD)
[Mechanical Engineering](#) (MSc), (MEng), (PhD)

N

[Nursing](#) (MSc), (MN)

P

[Philosophy](#) (MA)
[Physics](#) (MSc), (PhD)
[Political Science](#) (MA) (MPP Articulation)
[Psychology](#) (MA), (PhD)

S

[Statistics](#)(MSc) (*See also Mathematics and Statistics*)
[Social Work](#) (MSW)
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V

[Visual Arts](#) (MFA)

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1. The content of this Calendar is provided for the general guidance of the student and is not intended to make any contractual commitments therefor. The Calendar is accurate at the time of printing, but programs, courses, staffing, etc. are subject to change from time to time as deemed appropriate by the University of Windsor in order to fulfill its role and mission, or to accommodate circumstances beyond its control. Any such changes may be implemented without prior notice and, unless specified otherwise, are effective when made. The official University of Windsor academic calendars are: the Undergraduate Web Calendar, the Graduate Web Calendar, and the Faculty of Law Calendar.

2. This Calendar represents the University of Windsor's best judgment and projection of the course of conduct of the University of Windsor during the periods addressed herein. It is subject to change due to forces beyond the University of Windsor's control or as deemed necessary by the University of Windsor in order to fulfill its educational objectives.

3. Advisors are provided to assist students in planning their academic programs. Advisors are not authorized to change established policy of the University of Windsor. Students are solely responsible for assuring that their academic programs comply with the policies of the University of Windsor. Any advice which is at variance with established policy must be confirmed by the appropriate Dean's Office.

4. Any tuition fees and/or other charges described herein are good faith projections for the academic year. They are, however, subject to change from one academic term to the next as deemed necessary by the University of Windsor in order to meet its financial commitments and to fulfill its role and mission.

5. There are other fees and charges which are attendant upon a student's matriculation at the University of Windsor. These fees or charges may be determined by contacting the University offices which administer the programs or activities in which the student intends to enroll or engage.

6. The University of Windsor reserves the right to terminate or modify program requirements, content, and the sequence of program offerings from term to term for educational reasons which it deems sufficient to warrant such actions.

Further, the University of Windsor reserves the right to terminate programs from term to term for financial or other reasons which it determines warrant such action. The content, schedule, requirements and means of presentation of courses may be changed at any time by the University of Windsor for educational reasons which it determines are sufficient to warrant such action. Programs, services, or other activities of the University of Windsor may be terminated at any time due to reasons beyond the control of the University of Windsor.

7. The course descriptions herein are based upon reasonable projections of faculty and faculty availability and appropriate curriculum considerations. The matters described are subject to change based upon changes in circumstances upon which these projections were based and as deemed necessary by the University of Windsor to fulfill its role and mission.

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Notification of Disclosure of Personal Information to Statistics Canada

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Statistics Canada is the national statistical agency. As such, Statistics Canada carries out hundreds of surveys each year on a wide range of matters, including education.

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It is essential to be able to follow students across time and institutions to understand, for example, the factors affecting enrollment demand at post-secondary institutions.

The increased emphasis on accountability for public investment means that it is also important to understand 'outcomes'. In order to carry out such studies, Statistics Canada asks all colleges and universities to provide data on students and graduates. Institutions collect and provide to Statistics Canada student identification information (student's name, student ID number, Social Insurance Number), student contact information (address and telephone number), student demographic characteristics, enrollment information, previous education, and labour force activity.

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The Federal Statistics Act provides the legal authority for Statistics Canada to obtain access to personal information held by educational institutions. The information may be used only for statistical purposes, and the confidentiality provisions of the Statistics Act prevent the information from being released in any way that would identify a student.

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Students who do not wish to have their information used are able to ask Statistics Canada to remove their identification and contact information from the national database.

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Further information on the use of this information can be obtained from Statistics' Canada's web site: <http://www.statcan.ca> or by writing to the Postsecondary Section, Centre for Education Statistics, 17th Floor, R.H. Coats Building, Tunney's Pasture, Ottawa, K1A 0T6.

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FACULTY OF GRADUATE STUDIES AND RESEARCH

OFFICERS OF ADMINISTRATION

(Ext. 2107)

Dean

Dr. James S. Frank; B.Sc., M.Sc. (Waterloo), Ph.D. (Southern California)

Associate Dean

Dr. Michael J. Crawford; B.Sc., M.Sc., Ph.D. (Toronto)-1997.

FLUID DYNAMICS RESEARCH INSTITUTE

Interim Director: Dr. Gary W. Rankin

GREAT LAKES INSTITUTE FOR ENVIRONMENTAL RESEARCH

Director: Dr. Brian Fryer

HUMANITIES RESEARCH GROUP

Director: Dr. Kathleen McCrone

GRADUATE COUNCIL

One graduate faculty representative from each discipline or group of disciplines offering an OCGS approved program.

Ex-officio Members (with vote): Dean of Graduate Studies and Research; Associate Dean, Graduate Studies and Research; Vice-President, Research; President of the Graduate Student Society; University Librarian; Four (4) decanal representatives, elected by the Faculty Deans; Other members, to a maximum of two invited from the academic and/or administrative support services (non-voting); Nine additional student representatives from the Graduate Student Society

COMMITTEES

Academic Standing Committee
Admissions Committee
Awards Committee
Executive Committee
Graduate Support Committee
New Programs Committee
Nominating Committee

Membership elected annually from Graduate Council and graduate faculty.

Faculty

- Biological Sciences:
Programs

- Biological Sciences:
Courses

Odette School of Business:
Graduate Faculty

- Business: Programs

- Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

- Chemistry and Biochemistry:
Programs

- Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

- Communications Studies:
Programs

- Communication Studies:
Courses

Computer Science: Graduate
Faculty

- Computer Science:
Programs

- Computer Science: Courses

Earth Sciences: Graduate
Faculty

- Earth Sciences: Programs

- Earth Sciences: Courses

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Faculty of Education:
Graduate Faculty

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- Education: Courses

Faculty of Engineering:
Programs of Study Overview

Civil and Environmental
Engineering (CEE): Graduate
Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering:
Graduate Faculty

- Electrical Engineering:
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- Electrical Engineering:
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Engineering Materials:
Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
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Industrial and Manufacturing
Systems Engineering (IMSE):
Graduate Faculty

- IMSE: Areas of
Specialization

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Political Science: Graduate
Faculty

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Psychology: Graduate Faculty

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Social Work: Graduate
Faculty

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The Faculty of Graduate Studies and Research offers programs leading to the following degrees:

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Master of Arts in Communication and Social Justice, Economics, English, History, Philology, Political Science, Psychology, Sociology;

[Statistics Canada Disclaimer](#)

Master of Science in Biological Sciences, Chemistry and Biochemistry, Computer Science, Earth Sciences, Environmental Science, Mathematics and Statistics, Nursing, Physics;

[Important Dates: 2007-08](#)

Master of Applied Science in Civil Engineering, Electrical Engineering, Engineering Materials, Environmental Engineering, Industrial Engineering, Mechanical Engineering;

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Master of Engineering in Civil Engineering, Electrical Engineering, Engineering Materials, Environmental Engineering, Industrial Engineering, Mechanical Engineering;

[Programs Offered - Overview](#)

Master of Business Administration: M.B.A. (Co-operative Education), M.B.A. (Fast-track), M.B.A. for Managers and Professionals, Integrated M.B.A./LL.B.; Master of Management;

[Application Procedures](#)

Master of Education;

Master of Fine Arts in Visual Arts;

[Faculty Regulations](#)

Master of Human Kinetics;

Master of Nursing;

Master of Social Work;

[The Degree of Doctor of
Philosophy](#)

Doctor of Philosophy in Biological Sciences, Chemistry and Biochemistry, Civil Engineering, Computer Science, Earth Sciences, Educational Studies, Electrical Engineering, Engineering Materials, Environmental Engineering, Environmental Science, Industrial and Manufacturing Systems Engineering, Mathematics and Statistics, Mechanical Engineering, Physics, Psychology, Sociology;

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Postdoctoral Certificate in Adult Clinical Psychology.

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Graduate Faculty

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Communication Studies:
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Computer Science: Graduate
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- Computer Science: Courses

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APPLICATION PROCEDURES

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Application for admission may be made online at www.uwindsor.ca/grad.

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Applicants are advised to check departmental listings for deadlines. If an earlier deadline is not specified, applications, official transcripts, confidential reports, and the application fee should be submitted no later than July 1 for September admission, November 1 for January admission, and March 1 for May admission. However, applicants are advised that offers of admission will be made prior to and following these dates to qualified applicants. All positions may be filled before the deadline dates. Early applications are advised.

[Important Dates: 2007-08](#)

International applicants are required to obtain a student visa. This is the sole responsibility of the applicant. Applicants are advised that Canadian government processing of visa applications may take several months. It is recommended that international students apply at least 6-8 months prior to the semester in which they desire admission.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Admission to the Faculty of Graduate Studies and Research is by letter of offer from the Dean of Graduate Studies and Research.

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A decision to admit or not to admit is made by the Dean on the basis of a recommendation received from an academic unit, together with the documents required for admission.

[Application Procedures](#)

A decision may be reconsidered upon the request of either the applicant or the academic unit if further information is offered.

[Faculty Regulations](#)

Applicants who have not been admitted to the Faculty of Graduate Studies and Research may upgrade their qualifications and reapply. A subsequent decision would be made on the basis of a further recommendation from the academic unit and the updated file.

[The Degree of Doctor of
Philosophy](#)

DEFERRED APPLICATIONS

Offers of admission are made for a specific term, and, with the approval of the program, acceptance may be deferred for one term only. Students wishing to be considered for admission at a later date will normally be required to complete a new application and to resubmit their documents.

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DOCUMENTATION REQUIRED

[Research Institutes](#)

All documents received become the property of the University and will not be returned.

[General Courses, FGSR](#)

Action will be taken on an application for admission when all the documents listed below have been received:

[Biological Sciences: Graduate](#)

1) The online form "Application for Admission to the Faculty of Graduate Studies and Research" properly completed.

Faculty	2) Two official transcripts of all undergraduate and graduate work from all colleges or universities attended.
• Biological Sciences: Programs	3) Completed Confidential Report forms as provided in the application package.
• Biological Sciences: Courses	4) Graduate Record Examination (GRE): Applicants whose academic credentials are difficult to assess may be required to write the Graduate Record Examination administered by the Educational Testing Service, Princeton, New Jersey, U.S.A. 08540. Information on the GRE may be obtained from www.gre.org .
Odette School of Business: Graduate Faculty	5) Graduate Management Admission Test (GMAT): M.B.A. applicants are required to take the Graduate Management Admission Test prior to admission. Information on the GMAT may be obtained from www.gmat.org .
• Business: Programs	6) For applicants whose native language is not English, a satisfactory score on an English proficiency test administered by one of the following institutions:
• Business: Courses	(a) The Educational Testing Service, Test of English as a Foreign Language (TOEFL). For information on arranging for this test the applicant should contact www.ets.org or the Office of the Registrar.
Chemistry and Biochemistry: Graduate Faculty	(b) The English Language Institute of the University of Michigan, Michigan English Language Assessment Battery (MELAB). Contact www.lsa.umich.edu/eli/melab.htm .
• Chemistry and Biochemistry: Programs	(c) Canadian Academic English Language (CAEL) Assessment. Contact www.cael.ca .
• Chemistry and Biochemistry: Courses	(d) International English Language Testing System (IELTS). Contact www.ielts.org .
Communication Studies: Graduate Faculty	An applicant who is unable to take one of these tests must present satisfactory alternative evidence of English proficiency. Consideration of alternative evidence may be requested on an exceptional basis by writing to the Dean of Graduate Studies and Research and presenting supporting documentation of English proficiency.
• Communications Studies: Programs	ADMISSION LEVELS
• Communication Studies: Courses	<i>Master's Qualifying Admission (M1):</i> An applicant who holds a three-year degree in the discipline to which s/he is applying, or a four-year degree in another discipline, may be admitted as a qualifying student, with a recommendation for advancement to the M2 level contingent upon completion of a prescribed set of qualifying courses, with a minimum grade as specified by the program. Since qualifying students are not candidates for a degree, a qualifying student is not considered a graduate student.
Computer Science: Graduate Faculty	<i>Regular Admission (M2):</i> Applicants who hold a four-year degree or equivalent in the discipline to which they are seeking admission may be admitted to this level.
• Computer Science: Programs	<i>Transitional Admission (M2):</i> An applicant who holds a four-year degree, but not one in the discipline to which s/he is applying, may be admitted to a Master's program as a transitional student. Transitional students are normally required to complete a program of no more than five specified undergraduate courses in addition to the graduate courses required of regular students. Upon completion of these extra courses, with a minimum grade as specified by the program, the student may continue in the Master's program as a regular student.
• Computer Science: Courses	<i>Probationary Admission (M2):</i> An applicant who does not meet the minimum departmental program admission requirements, but who can present evidence of leadership, and/or substantial related work experience, may be considered for probationary admission upon the recommendation of the program. Students who are accepted on probation will be required to satisfactorily complete a minimum of two specified graduate courses, in addition to any other admission requirements, before
Earth Sciences: Graduate Faculty	
• Earth Sciences: Programs	
• Earth Sciences: Courses	

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

conditions are waived. During the probationary period, no other graduate courses may be taken. A student will not normally continue on probationary admission for more than two terms. Graduate credit will be given for the graduate courses after the conditions are waived. The final decision on probationary admission rests with the Faculty of Graduate Studies and Research.

Ph.D.: Applicants who hold a Master's degree or, in exceptional cases, a four-year Bachelor's degree, may be admitted to this level.

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

POSTGRADUATE AWARDS

For information regarding graduate scholarships and other awards, see "[Postgraduate Awards and Financial Aid](#)".

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

- [IMSE: Courses](#)

[Mechanical Engineering:
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[English: Graduate Faculty](#)

- [English: Programs](#)

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[ES: Courses](#)

[History: Graduate Faculty](#)

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[Faculty of Human Kinetics:
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- [Kinesiology: Programs](#)

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Faculty of Nursing: Graduate
Faculty

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Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
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Sociology: Graduate Faculty

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FACULTY REGULATIONS

REGISTRATION

Students whose applications for admission to graduate study have been approved for full- or part-time study should present themselves to their program advisors prior to registration on the dates recorded in the section "[Important Dates](#)".

Categories of Registration

The University designates graduate students as full- or part-time:

1) *Full-Time Student*: A student who is admitted to a program on a full-time basis and who meets the following criteria will be registered as a full-time student:

(a) is geographically available and visits the campus regularly. It is understood that a graduate student may be absent from the University while still under supervision, *e.g.*, visiting libraries, attending a graduate course at another institution, doing field work, *etc.* If such period of absence exceeds four weeks in any term, written evidence must be made available to the Office of Graduate Studies and Research to the effect that the absence has the approval of the program coordinator;

(b) students employed by the University may not work for more than an average of ten hours a week. If a student is employed as a teaching assistant or a sessional instructor, the ten hours a week should represent the total time spent by the student in connection with the appointment, including time spent on preparation, reading, setting assignments, marking examinations, *etc.*

2) *Part-Time Student*: Some graduate programs are available on a part-time basis. Students interested in part-time studies should first consult the program coordinator. If a student has not been accepted on a part-time basis at first registration, he or she must petition the Faculty of Graduate Studies and Research for permission to transfer to part-time status for cause. Such petitions will not normally be granted to students meeting criteria (a) and (b) above for full-time students, or students completing major paper, thesis or dissertation work. However, petitions based on domestic responsibilities which demand more than ten hours a week will be considered.

Note: Part-time students may not take more than two courses in any term. Registration in any given term for a major paper, thesis, or dissertation is counted as the equivalent of one course.

Graduate Registration Regulations

1) Graduate students must register before the proper deadline or they will not receive credit for academic work they may be doing during the term. Note: Registration is not complete until the appropriate fees have been paid.

Students completing all requirements for the degree within the first few weeks of a term may be eligible for a tuition refund for that term. (Consult the Office of Graduate Studies and Research.)

Faculty

• Biological Sciences: Programs

2) Full-time students are required to maintain continuous registration through all terms of their graduate program. Failure to do so will require application for readmission to their program and payment may be required for terms missed, up to a maximum of three terms.

• Biological Sciences: Courses

3) In accordance with the circumstances listed below, a student may apply to the Dean of Graduate Studies and Research for, and may be granted, a leave of absence.

Odette School of Business: Graduate Faculty

Maternity Leave: Graduate students may request a maternity leave for no more than three consecutive terms without prejudice to their academic standing.

• Business: Programs

Paternity Leave: In recognition of a father's role, a graduate student may request paternity leave for no more than one term without prejudice to their academic standing.

• Business: Courses

Parental Leave: Parental leave is intended to recognize the need for a pause in studies in order to provide full-time care in the first stages of parenting a child. Either or both parents may request one term of leave without prejudice to their academic standing. The request for leave must be completed within twelve months of the date of birth or custody.

Chemistry and Biochemistry: Graduate Faculty

Financial Leave: In the case of financial necessity, primarily as evidenced by the support awarded through the University, a student shall be granted a leave of no more than one term out of three upon application (not available to part-time students.)

• Chemistry and Biochemistry: Programs

Medical Leave: Graduate students may apply for a leave of absence on medical grounds for up to three terms without prejudice to their academic standing. Students are required to provide documentation to support a medical leave of absence.

• Chemistry and Biochemistry: Courses

Personal Leave: Graduate students may apply for a leave of absence on grounds of serious personal circumstances for up to three terms without prejudice to their academic standing. Examples, though not wholly inclusive, are death in the immediate family, psychological difficulties, and educational opportunities (e.g., B.Ed., LL.B.).

Communication Studies: Graduate Faculty

A term is defined as a four-month period coinciding with the academic calendar (January to April; May to August; and September to December).

• Communications Studies: Programs

While on leave, a student will not have access to any university resources, including office space, computer access, library facilities, continuation of laboratory experiments, computer research applications, and guidance by faculty members.

• Communication Studies: Courses

Computer Science: Graduate Faculty

Apart from the combination of maternity or paternity and parental leave, sequentially combining two leave of absence classifications is allowable only in special and extenuating circumstances.

• Computer Science: Programs

Applications may be submitted to the student's department for recommendation before the end of the second week of the term. A student on leave of absence will be assessed a fee of fifty dollars (\$50.00) per term. Appeals against any decisions shall be heard promptly by the Graduate Appeals Committee.

• Computer Science: Courses

Earth Sciences: Graduate Faculty

4) Part-time students must register in every session in which the facilities of the University are to be utilized, whether in residence or off-campus. This includes those who are consulting with faculty members while working on a major paper, thesis, or dissertation. Part-time students who have not registered in two consecutive terms will be required to apply for readmission, and their applications will be considered on their merits in the light of the then prevailing conditions and circumstances.

• Earth Sciences: Programs

• Earth Sciences: Courses

5) Students are reminded that they will not receive credit for courses for which they are not properly registered or for courses completed during terms in which the student has

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

not paid fees.

Once a student has registered, course changes or withdrawal after the published deadlines require permission from the Dean of Graduate Studies and Research. Subjects dropped without permission from the Dean will be regarded as failures.

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Non-Degree Registration: A student who is not interested in admission as a degree student may be allowed to register for individual courses on a non-degree basis. The maximum number of courses taken overall on this basis is two. Only students who have been admitted to a graduate program may receive graduate credit at the University of Windsor for courses taken.

Audit Student: An audit student in any course is one who attends the course without credit toward a degree or program. Such a student will not be allowed to write examinations and cannot be graded in any way. The student will pay the regular fees for the course(s).

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

POLICY ON AUTHORSHIP AND PLAGIARISM

The University expects that all researchers will adhere to the proper standards of intellectual honesty in the written or spoken presentation of their work and will at all times acknowledge in a suitable manner the contribution made by other researchers to their work, as outlined in the Senate Policy on Authorship (available from the Clerk of the Senate) and the Policy Statement on Research Personnel (available from the Office of Research Services).

Plagiarism is defined as: "The act of appropriating the literary composition of another, or parts of passages of his/her writing, or the ideas or language of the same, and passing them off as the products of one's own mind." (Black's Law Dictionary)

It is expected that all graduate students will be evaluated and graded on their individual merit, and all work submitted for evaluation should clearly indicate that it is the student's own contribution.

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Graduate students often have to use the ideas of others as expressed in written or published work in preparing essays, papers, reports, theses and publications. It is imperative that both the data and ideas obtained from any and all published or unpublished material be properly acknowledged and their sources disclosed. Failure to follow this practice constitutes plagiarism and is considered to be a serious offence by the University. Thus, anyone who knowingly or recklessly uses the work of another person and creates an impression that it is his or her own is guilty of plagiarism.

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

It is not permissible for an essay or other paper to be submitted twice. It is expected that a thesis, essay, paper or report has not been, and is not concurrently being, submitted to any other Faculty or University for credit toward any degree, or to this University for any other course. In exceptional circumstances and with the prior agreement of the instructor, a student may use research completed for one course as part of his or her written work for a second course.

Where plagiarized work has been submitted, or where a student has submitted a paper for double credit, a failing grade may be assigned by the instructor to that assignment. The student has the right to appeal this grade to the Dean of Graduate Studies and Research, in accordance with the Graduate Appeals Policy as stated in Senate Bylaw 51B. Disciplinary action may be taken, as set out in Senate Bylaw 31.

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

In case of any doubt, students are strongly urged to consult with the instructor or thesis supervisor. In cases where students feel that their intellectual property or copyrighted material has been plagiarized, complaints should be made in writing to the Dean of Graduate Studies and Research.

• IMSE: Courses

Mechanical Engineering:
Graduate Faculty

• Mechanical Engineering:
Areas of Specialization

• Mechanical Engineering:
Courses

English: Graduate Faculty

• English: Programs

• English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

• History: Programs

• History: Courses

Faculty of Human Kinetics:
Graduate Faculty

• Kinesiology: Programs

• Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

• Mathematics and Statistics:
Programs

• Mathematics and Statistics:
Courses

GRADING AND DROPPING COURSES

For the standards which are required in specific degree programs, see 1.5 (Ph.D.) and 1.6 (Master's).

Letter Grades for Graduate Courses:

A+, A, A-, B+, B, B-, C+, C, C-, F, F-, NR (Failure, No Record)

INC (Incomplete - course work only)

IP (In Progress - major paper, project, thesis, or dissertation)

P or NP (Pass or Non-Pass)

S or U (Satisfactory or Unsatisfactory)

Grade Conversion Scale

Grade Point	Letter Grade	Range
13	A+	93-100
12	A	86-92.9
11	A-	80-85.9
10	B+	77-79.9
9	B	73-76.9
8	B-	70-72.9
7	C+	67-69.9
6	C	63-66.9
5	C-	60-62.9
---	---	---
1	F	35-59.9
0	F-	0-34.9

The final deadline for dropping one-term (*i.e.*, twelve- or thirteen-week) graduate courses in Fall, Winter, or Summer term without a grade being assigned is nine weeks from the start of the term; for six-week courses in Intersession and Summer Session, three weeks are allowed. Prior to the deadline, courses dropped will be recorded as "Voluntary Withdrawal".

The granting of an Incomplete grade must follow discussion between the student and the course instructor concerning the nature of the work to be completed and the time period for completion. Courses recorded as Incomplete must be completed and a grade reported within twelve months of the original due date unless an earlier deadline has been established. If such courses are not completed within twelve months, they will be permanently designated as Incomplete on the student's transcript. Normally, a student may carry only one Incomplete grade at a time. Graduate students carrying more than one Incomplete grade at the end of a term will have their progress reviewed by their program chair, and a recommendation will be forwarded in each case to the Office of Graduate Studies and Research. Incomplete grades are normally not granted for major papers, theses or dissertations.

The Faculty of Graduate Studies and Research requires that students maintain at least an 8.0 cumulative G.P.A. at all times.

Courses in which a grade of B- or higher is received will be accepted for graduate credit. In addition, upon the positive recommendation of the program concerned, the Faculty of Graduate Studies and Research may grant credit for not more than two term

Faculty of Nursing: Graduate Faculty

- Nursing: Programs
- Nursing: Courses

courses in which a grade of C+, C or C- has been obtained. The regulations of individual departments should be consulted for their particular policies on C grades.

If a student fails to obtain credit in a course, the course may be repeated once only, at the discretion of the program concerned and the Dean of Graduate Studies and Research. No student may repeat, or replace with another course, more than two term courses in which credit was not obtained.

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Letter grades or Satisfactory/Unsatisfactory may be assigned for theses and major papers, depending on program policy.

Theses and major papers, for which a letter grade is assigned, must be graded B- or better to receive credit.

EXAMINATIONS AND APPEALS

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

A program may require either oral or written examinations in graduate courses. Each instructor must inform his or her students, by the end of the second week of each course, concerning the following:

- (a) the basis for determining the final grade in the course;
- (b) the approximate dates for tests, essays, *etc.*

Alterations in the announced procedure may be made by the instructor with the consent of the majority of the registered class.

Political Science: Graduate Faculty

- Political Science: Programs
- Political Science: Courses

A student who wishes to receive consideration on account of a serious illness or a bereavement prior to or during the examination period should communicate with the Head of the Department or program coordinator concerned as soon as possible, and must submit supporting documents (*e.g.*, a medical certificate) within one week of the scheduled examination. In such cases, the Dean of Graduate Studies and Research, on recommendation of the program and the Academic Standing Committee, may grant aegrotat standing in the subject or subjects concerned on the basis of the term mark, or approve an Incomplete grade or grant permission for a supplemental examination.

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Graduate appeals must be made in writing to the Dean of Graduate Studies and Research, in accordance with the Graduate Appeals Policy as stated in Senate Bylaw 51 B. and C. Appeals must be received no later than three weeks after the final mark has been released by the Registrar.

Social Work: Graduate Faculty

- Social Work: Programs
- Social Work: Courses

GRADUATION

In order to allow the necessary time for the printing of the diploma and the Convocation program, the candidate's completed work must be approved by the Faculty of Graduate Studies and Research and the major paper, project, thesis or dissertation, if one is presented, must be received by the Office of Graduate Studies and Research for transmission to the Leddy Library at least two weeks before Convocation.

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Registration in any program does not constitute an application for a degree or diploma. An "Application to Graduate" must be completed and filed with the Registrar's Office by the specified date prior to the Convocation at which the applicant expects to graduate.

Visual Arts: Graduate Faculty

- [Visual Arts: Programs](#)

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The Degree of Doctor of Philosophy

ADMISSION REQUIREMENTS

Graduates of recognized universities may apply for admission. In general, admission to graduate study is granted only to those students who have good academic records and who are adequately prepared to undertake graduate work in their field of specialization. In particular, an applicant for admission to a graduate program leading to the degree of Doctor of Philosophy must have either a Master's degree or, in exceptional cases, a four-year Bachelor's degree, or the equivalent; his or her academic standing should be unquestionably superior.

Possession of the minimum requirements does not ensure admission.

Applications will be received from students in their final undergraduate or Master's year, but acceptance will be conditional until a satisfactorily completed record is submitted.

Candidacy: Admission to graduate study does not imply admission to candidacy for a degree. Admission to candidacy for the degree of Doctor of Philosophy is granted by the Dean of Graduate Studies and Research, upon recommendation of the program concerned, when a student has satisfied the requirements for candidacy of the Faculty of Graduate Studies and Research and of the program, as these may be specified in program listings in the calendar. Admission to candidacy is normally to be regarded as recognition that a student has given adequate evidence of superior capability and achievement in graduate study. A student may not be admitted to candidacy for the degree of Doctor of Philosophy before passing a comprehensive examination in the field of specialization.

PROGRAM REQUIREMENTS

Residence: Residence requirements are intended to provide for each student an adequate contact with the University, with the faculty in the field of specialization, and with the library, laboratories, and other facilities for graduate study and research. Every student in a program leading to the degree of Doctor of Philosophy must be registered in a full-time program of study for a minimum of three calendar years, normally in succession. Credit for one of these years may be given for the time spent in proceeding to a Master's degree.

Credit for no more than one-half of the required courses for a program, taken at another university, may be given at the discretion of the Faculty of Graduate Studies and Research, upon recommendation of the program coordinator.

A full-time residence year indicates that a student is in full-time work under the direction of a faculty member at the University of Windsor. Persons who teach more than three hours a week or who demonstrate in laboratories to such an extent that the total time spent in preparation, demonstration and working exceeds ten hours a week cannot qualify for residence credit.

Time Limit: A student admitted to a Ph.D. program requiring full-time attendance for three years must complete all requirements for the Ph.D. within seven consecutive years.

Faculty

• Biological Sciences: Programs

A student admitted with one year's advanced standing (e.g., holders of Master's degrees) must complete all requirements within six consecutive years.

• Biological Sciences: Courses

If an extension of the time limit becomes necessary, the student should address a petition to the Dean of Graduate Studies and Research giving reasons for the request and plans for the completion of the work. A student who exceeds the time limit may be required to take additional qualifying examinations or additional course work, or both.

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Course of Study: Course requirements are specified in the program listings. Planning and direction of the student's course of study are the responsibility of the program coordinator or a designated departmental advisor. A specific program of study should be worked out at the time of the student's first registration, in consultation with the program coordinator or an advisor. Training in methodology may be required, at the discretion of the program.

Since in several programs only a few courses listed will be offered each year, students are advised to ascertain from the program coordinator or an academic advisor which courses will be offered in any given year.

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

In consultation with their advisor or the program coordinator, all students must complete an Annual Report which is to be submitted to the Office of Graduate Studies and Research by May 31 of each year.

• Chemistry and Biochemistry: Courses

It is expected that students working toward the degree of Doctor of Philosophy will maintain a superior average in all course work. Normally, graduate credit will be given only for A or B standing in a course. Concerning credit for C grades, see 1.4.3.

Communication Studies: Graduate Faculty

• Communications Studies: Programs

After consultation between student and professor and authorization by the program coordinator, a graduate course may be recorded INC (Incomplete) when:

1) the student has completed the class work but is unable to take the end of course examination because of illness or other acceptable reason, or

• Communication Studies: Courses

2)
(a) the student is unable to complete the work for the course because of illness or other acceptable reason, and
(b) the student has done satisfactory work in the course, and
(c) in the opinion of the professor, the student can complete the normally required work of the course without repeating the course in class.

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Committees: Research undertaken as part of a doctoral program is normally directed and supervised by a doctoral committee. The program coordinator will recommend the appointment of members of the doctoral committee, whose appointments must be approved by the Executive Committee of the Faculty Council of Graduate Studies and Research.

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

Within the first term of registration at doctoral level, each student will be assigned a doctoral committee consisting of a research advisor from the program, who is a member of graduate faculty, two other faculty members in the program, and one from another program at the University of Windsor. Additional members may be added with the approval of the program coordinator and the Executive Committee of the Faculty Council of Graduate Studies and Research. This committee will, from time to time, review the student's progress.

The doctoral committee is also charged with conduct of the final examination of the doctoral candidate (see below).

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

For the defense of the dissertation (final oral examination), the committee will be supplemented by an independent, external examiner who, as an expert in the field in which the candidate's research is carried out, will appraise the dissertation and ordinarily will also be present at the final oral examination.

The external examiner will be recommended by the doctoral committee, subject to the approval of the program coordinator and the Dean of Graduate Studies and Research. The external examiner must not be involved in the preparation of the dissertation before it is submitted to him or her for final evaluation.

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

If the research involves human ethics, the faculty supervisor is responsible for the conduct of the study, the ethical performance of the project, and the protection of the rights and welfare of human participants. With the signed approval of the faculty supervisor, the graduate student submits an application to the Research Ethics Board. Research involving human subjects, including secondary use of data, cannot begin until ethics clearance has been obtained. (Consult the Office of Research Services.)

Faculty of Engineering: Programs of Study Overview

If the research involves animal care or biohazards, the supervisor of the dissertation is responsible for obtaining prior approval from the respective committees governing the above topics. (Consult the Office of Research Services.)

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

THE DISSERTATION

A dissertation embodying the results of an original investigation in the field of specialization is required of all candidates for the degree of Doctor of Philosophy. Before beginning the dissertation, the candidate should submit a prospectus, outlining the problem proposed. Copies of this prospectus should be filed with the doctoral committee not later than four weeks after the student is admitted to candidacy.

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

The regulations of individual programs should be consulted for details of their dissertation procedures. The general format is prescribed in the *Procedures to Follow in Preparing a Major Paper, Thesis or Dissertation*, which may be obtained from the Administrative Officer in the Office of Graduate Studies and Research or from www.uwindsor.ca/grad. Within the dissertation, the student should use formats approved for scholarly publication in the field of specialization and approved by the program coordinator. Final checking of the general format of the dissertation is the responsibility of the Office of Graduate Studies and Research, but the student should consult the doctoral committee for instructions as to the internal form of the dissertation.

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Copies of a Ph.D. dissertation are to be provided to all members of the doctoral committee and two copies to the Office of Graduate Studies and Research, including one copy to be transmitted to the external examiner, at least four weeks before the expected date of defense. Before the dissertation is forwarded to the external examiner, it must be approved by the majority of the doctoral committee. No changes may be made to the composition of the doctoral committee between these deadline dates and the defense except under the most extraordinary circumstances and with approval of the Executive Committee of Graduate Studies and Research. The oral presentation should be completed at least three weeks prior to the Convocation for which the candidate has applied to receive the degree. A public notice of defense must be received in the Office of Graduate Studies and Research and posted in the academic unit at least eight days in advance of the oral presentation.

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

A doctoral committee shall notify the Office of Graduate Studies and Research whether, in its view, notice of defense is to be posted, but the decision to proceed shall be contingent upon the report of the external examiner to the Dean of Graduate Studies and Research.

The candidate will present the dissertation at a public defense. The Chair of a Ph.D. defense will be the Dean of Graduate Studies and Research or designate, such as the

- IMSE: Courses

Mechanical Engineering:
Graduate Faculty

- Mechanical Engineering:
Areas of Specialization

- Mechanical Engineering:
Courses

English: Graduate Faculty

- English: Programs

- English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

- History: Programs

- History: Courses

Faculty of Human Kinetics:
Graduate Faculty

- Kinesiology: Programs

- Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

- Mathematics and Statistics:
Programs

- Mathematics and Statistics:
Courses

Associate Dean of Graduate Studies and Research, Dean of a Faculty or senior member of graduate faculty from outside the program, to be named by the Dean of Graduate Studies and Research at the time the defense is publicly announced. The chair is non-voting. Questions will be permitted from the general audience at the discretion of the chair. The general audience may remain until the defense is completed and the committee begins its deliberations on the outcome. These deliberations are held in camera.

The minimum basis for acceptance of a Ph.D. dissertation shall be positive unanimity less one vote providing the dissenting vote is not by an external examiner who is present at the defense, and the chair of the defense determines that the examination by the external examiner has been fair to the candidate. Unless an examining committee is unanimously negative, a candidate may resubmit the dissertation once, after a minimum period of three months and before a maximum period of twelve months. The second decision shall be final.

Three copies of the corrected dissertation must be deposited with the Administrative Officer in the Office of Graduate Studies and Research for transmission to the Leddy Library and to the academic unit at least two weeks prior to Convocation.

The title page of the dissertation, or a separate page immediately following the title page, must bear the Universal Copyright Convention symbol ©, the full name of the author, and the year the doctoral degree was granted. Arrangements for binding the dissertation and payment of fees connected with binding and microfilming should be made with the Administrative Officer. The Office of Graduate Studies and Research will transmit the original copy of the dissertation to the National Library, accompanied by Form NL/BN59/02, supplied by the Office and validated by the candidate, which authorizes the National Library to produce single copies, in response to a formal request from an individual, a research institute, or a library.

If approved, the physical dissertation becomes the property of the University. Two copies, the original (after return from the National Library) and one other, will be filed in the Leddy Library, and a third copy in the academic unit.

Occasionally, it is necessary to withhold the dissertation from public circulation, especially where the student's interests (e.g., patent rights) would be jeopardized by publication. In such cases, a thesis may be held from the public domain, i.e., the Leddy Library and the National Library of Canada. Such delay in circulation may be requested for six months without cause being given, and an additional period of six months with good cause. Forms for withholding a thesis are available from the Office of Graduate Studies and Research.

Dissertation Requirements Synopsis:

1) Dissertation format must be as prescribed by *Procedures to Follow in Preparing a Major Paper, Thesis or Dissertation*.

2) Copies of the dissertation must be provided to all committee members and two copies to the Office of Graduate Studies and Research at least four weeks before the oral defense, which must occur at least three weeks prior to the Convocation at which the candidate has applied to receive the degree.

3) Public notice of defense must be received in the Office of Graduate Studies and Research and posted in the academic unit at least eight (8) days in advance of the defense date.

4) Following successful defense, the candidate will deposit three copies of the dissertation in the Office of Graduate Studies and Research for binding and distribution (two for the Leddy Library, one for the academic unit).

Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

5) The candidate will validate Form NL/BN50/02, supplied by the Office of Graduate Studies and Research, authorizing the National Library to produce single copies. At the same time the candidate will be required to validate the Non-Exclusive license to the University of Windsor authorizing the University to archive, reproduce and distribute the dissertation. The title page of the dissertation, or separate page following, must bear the Universal Copyright Convention symbol ©, full name of author, and year doctoral degree was granted.

6) Fees for above are to be paid at time of deposit of the dissertation in the Office of Graduate Studies and Research.

EXAMINATIONS

In addition to the usual examinations on course work, there are three types of special examinations which may be required (see individual program regulations) in the program leading to the degree of Doctor of Philosophy:

1) *Qualifying Examinations*: A qualifying examination is one in which the student is asked to demonstrate a reasonable mastery of the fundamentals in the major subject; it is designed to test the student's preparation for advanced graduate work. If such an examination is required, it must be administered and passed within one year after a student enters a graduate program.

2) *Comprehensive Examinations*: The comprehensive examination is one in which the student is asked to demonstrate a reasonable mastery of the field of specialization; it is designed to test the student's command of knowledge and ability to integrate that knowledge, after completion of all or most of the graduate course work. Normally, this examination is completed at the end of the second year of graduate study and is a prerequisite to admission to candidacy.

3) *Final Examinations*: The final examination of a doctoral candidate is an oral defense of the dissertation.

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The Master's Degree

ADMISSION REQUIREMENTS

Graduates of recognized universities may be admitted to programs leading to the Master's degree. A student with a four-year degree or equivalent in the discipline to which s/he is seeking admission, and who has an academic standing at least in the B range overall and in both the final two years of study and the major subject, may be admitted to a Master's program (M2).

An applicant who holds a four-year degree in another discipline, and who has an academic standing at least in the B range overall and in the final year of study and the major subject, may also be admitted to a Master's program as a transitional student. Transitional students are normally required to complete a program of no more than five specified undergraduate courses in addition to the graduate courses required of regular students. Upon completion of these extra courses, with a minimum grade as specified by the program, the student may continue in the Master's program as a regular student.

An applicant who does not meet minimum departmental program admission requirements, but who can present evidence of leadership, and/or substantial related work experience, may be considered for probationary admission upon the recommendation of the program. Students who are accepted on probation will be required to satisfactorily complete a minimum of two specified graduate courses, in addition to any other admission requirements, before conditions are waived. During the probationary period no more than two graduate courses may be taken. A student will not normally continue on probationary admission for more than two terms. Graduate credit will be given for the graduate courses after the conditions are waived. The final decision on probationary admission rests with the Faculty of Graduate Studies and Research.

An applicant who holds a three-year degree in the discipline to which s/he is applying, or a four-year degree in another discipline, and who has an academic standing at least in the B range overall and in both the final year of study and major subject may be admitted as a qualifying student, with a recommendation for advancement to M2 level contingent upon completion of a prescribed set of qualifying courses, with a minimum grade as specified by the program. Since qualifying students are not candidates for a degree, a qualifying student is not considered a graduate student.

Applicants are urged to apply as early as possible to enable the program and the Faculty of Graduate Studies and Research to evaluate qualifications.

Possession of the minimum requirements does not ensure admission.

Candidacy: A student in an M2 program is also a candidate for the Master's degree. Students in the two-year M1 program followed by the M2 program are not admitted to candidacy until they have satisfactorily completed the M1 program. A positive recommendation from a program and approval of that recommendation are required for a student to proceed to the M2 program.

PROGRAM REQUIREMENTS

Faculty

• Biological Sciences: Programs

• Biological Sciences: Courses

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

Residence: Residence requirements are intended to provide for each student an adequate contact with the University, with the faculty in the field of specialization, and with the library, laboratories, and other facilities for graduate study and research. It is expected, therefore, that every full-time student in a program leading to the Master's degree will undertake a full program of study at the M2 level for a minimum of one calendar year or its equivalent. Application and interpretation of the residence requirement is the responsibility of the Dean of Graduate Studies and Research. If a student does not expect to fulfil the residence requirement in the normal way, reasons for departing from the norm should be submitted in writing to the Dean and approval secured for the plan before beginning the graduate program. See also the section on "Duration of Study" below.

The residency requirement is not intended to apply to students admitted to graduate programs on a part-time basis.

Duration of Study: The minimum duration of study for the Master's degree is one calendar year beyond the honours Bachelor's degree, or its equivalent. Credit for no more than one-half of the required courses for the program taken at another university may be given at the discretion of the Dean of Graduate Studies and Research, upon the recommendation of the program coordinator. Residency still applies.

Time Limit: Work on a Master's degree must be completed within three consecutive calendar years after the student's first registration, except for certain Master's programs available on a part-time basis. In these latter programs, the time limit will depend on the nature of the program, but will not normally exceed five consecutive years.

If an extension of these time limits becomes necessary, the student should address a petition to the Dean of Graduate Studies and Research giving reasons for the request and plans for the completion of the work. A student who exceeds the time limit may be required to take additional qualifying examinations or additional course work, or both.

Course of Study: Course requirements are specified in the program listings. Planning and direction of the student's course of study are the responsibility of the program coordinator or a designated advisor. A specific program of study should be worked out at the time of the student's first registration, in consultation with the program coordinator or an advisor. Students are directed to obtain the approval of the program coordinator or designated advisor for changes in the program of study. Training in methodology may be required, at the discretion of the program.

In consultation with their advisor or the program coordinator, all students must complete an Annual Report which is to be submitted to the Office of Graduate Studies and Research by May 31 of each year.

Students working toward the Master's degree must maintain at least a B- average in all course work. A candidate for the Master's degree who does not obtain graduate credit in any course may repeat the course once only, and not more than one course may be repeated. Normally, graduate credit will be given only for A or B standing in a course. Concerning credit for C grades, see section "[Faculty Regulations](#)". Letter grades or Satisfactory/Unsatisfactory may be assigned for theses, major papers, and projects depending on individual program policy.

After consultation between student and professor and authorization by the program coordinator, a graduate course may be recorded as INC (Incomplete) when:

1) the student has completed the class work but is unable to take the end of course examination because of illness or other acceptable reason, or

2)

(a) the student is unable to complete the work for the course because of illness or other

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

acceptable reason, and

(b) the student has done satisfactory work in the course, and

(c) in the opinion of the professor, the student can complete the normally required work in the course without repeating the course in class.

Committees: Research undertaken as part of a Master's program is normally directed and supervised by a Master's committee. By the end of the first term of registration in the thesis, the program coordinator will recommend the appointment of members of the Master's committee, whose appointments must be approved by the Executive Committee of the Faculty of Graduate Studies and Research.

The Master's thesis committee will include as a minimum the chief advisor from the program, who is a member of graduate faculty, and two other University of Windsor faculty members, one of whom shall belong to a program other than the one in which the student is obtaining the degree. Additional members may be added with the approval of the program coordinator and the Executive Committee of the Faculty of Graduate Studies and Research. The member(s) from outside the program need not participate in the direction of research but shall contribute a judgment on its completion.

The Master's committee is also charged with conduct of the final examination of the Master's candidate (see below).

If the research involves human ethics, the faculty supervisor is responsible for the conduct of the study, the ethical performance of the project, and the protection of the rights and welfare of human participants. With the signed approval of the faculty supervisor, the graduate student submits an application to the Research Ethics Board. Research involving human subjects, including the secondary use of data, cannot begin until ethics clearance has been obtained. (Consult the Office of Research Services.)

If the research involves animal care or biohazards, the supervisor of the thesis is responsible for obtaining prior approval from the respective committees governing the above topics. (Consult the Office of Research Services.)

THESIS OR MAJOR PAPER

A thesis incorporating the results of an investigation in the field of the major subject may be required of candidates for the Master's degree.

Candidates for some Master's programs may choose, instead of the course of study including a thesis, a program requiring additional course work and/or the submission of a major paper or project on which there will be a final evaluation.

The Major Paper/Project is a scholarly essay/research project that shows evidence of critical analysis and understanding on a topic approved by the student's supervisor and acknowledged by the program coordinator.

The Major Paper/Project committee will include a supervisor, who is a member of graduate faculty, and one other program faculty member. Additional members may be added with the approval of the program coordinator.

Upon completion of the Major Paper/Project each student will deliver a public oral presentation and defense which shall be announced publicly (with a copy sent to the Office of Graduate Studies and Research) at least eight days in advance. Major Paper/Projects are graded by the committee with letter grades or as Satisfactory or Unsatisfactory.

The Major Paper/Project is not subject to thesis regulations concerning full library binding, copyright application, and microfilming for the National Library, but is deposited in the library and in the departmental office of the program.

- IMSE: Courses

The regulations of individual programs should also be consulted for details of their thesis or major paper requirements. Letter grades or Satisfactory/Unsatisfactory may be assigned for theses and major papers, depending on program policy.

Mechanical Engineering:
Graduate Faculty

Although in some cases it may be acceptable for more than one candidate to make use of a common set of data or research findings, each candidate is responsible for a single-authored thesis/major paper.

- Mechanical Engineering:
Areas of Specialization

- Mechanical Engineering:
Courses

The regulations of individual programs should be consulted for details of their procedures. The general format is prescribed in *Procedures to Follow in Preparing a Major Paper, Thesis or Dissertation*, which may be obtained from the Administrative Officer in the Office of Graduate Studies and Research or from www.uwindsor.ca/grad. Within the thesis, the student should use formats approved for scholarly publication in the field of specialization and approved by the program coordinator. Final checking of the general format of the thesis is the responsibility of the Office of Graduate Studies and Research, but the student should consult the Master's committee for instructions as to the internal form of the thesis.

English: Graduate Faculty

- English: Programs

- English: Courses

Copies of the Master's thesis must be provided to all members of the Master's committee and one copy to the chair of the defense, at least two weeks before the expected date of defense. Students are advised to ascertain from the academic unit any prior deadline established by the unit. No changes may be made to the Master's committee between these deadline dates and the defense except under the most extraordinary circumstances and with the approval of the Executive Committee of Graduate Studies and Research. The oral presentation should be completed at least three weeks prior to the Convocation at which the candidate expects to receive the degree.

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

No later than eight days before a proposed defense a Master's committee shall notify the Office of Graduate Studies and Research that a notice of defense is to be posted. The chair of a Master's defense will be a member of graduate faculty who has not served on the candidate's Master's committee, and who is appointed by the Department Head at the time the defense is publicly announced. The chair is non-voting. The general audience may remain until the defense is completed and the committee begins its deliberations on the outcome. These deliberations are held *in camera*.

History: Graduate Faculty

- History: Programs

- History: Courses

The minimum basis for acceptance of a Master's thesis is positive unanimity by the examining committee less one vote. Unless an examining committee is unanimously negative, a candidate may resubmit the thesis once, after a minimum period of three months and before a maximum period of twelve months. The second decision shall be final.

Faculty of Human Kinetics:
Graduate Faculty

- Kinesiology: Programs

- Kinesiology: Courses

Three copies of the corrected thesis must be deposited in the Office of Graduate Studies and Research for transmission to the Leddy Library and to the academic unit at least two weeks prior to Convocation.

Mathematics and Statistics:
Graduate Faculty

- Mathematics and Statistics:
Programs

- Mathematics and Statistics:
Courses

The title page of the thesis, or a separate page immediately following the title page, must bear the Universal Copyright Convention symbol ©, the full name of the author, and the year the Master's degree was granted. Arrangements for binding the thesis and payment of fees connected with binding and microfilming should be made with the Administrative Officer. The Office of Graduate Studies and Research will transmit the original copy of the thesis to the National Library, accompanied by Form NL/BN59/02, supplied by the Office and validated by the candidate, which authorizes the National Library to produce single copies, in response to a formal request from an individual, a research institute, or a library.

If approved, the physical thesis becomes the property of the University. Two copies will be filed in the Leddy Library, and a third in the academic unit.

Faculty of Nursing: Graduate Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
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Social Work: Graduate Faculty

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- Social Work: Courses

Sociology: Graduate Faculty

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Visual Arts: Graduate Faculty

Occasionally, it is necessary to withhold the dissertation from public circulation, especially where the student's interests (*e.g.*, patent rights) would be jeopardized by publication. In such cases, a thesis may be held from the public domain, i.e., the Leddy Library and the National Library of Canada. Such delay in circulation may be requested for six months without cause being given, and an additional period of six months with good cause. Forms for withholding a thesis are available from the Office of Graduate Studies and Research.

At the same time the candidate will be required to validate the Non-Exclusive license to the University of Windsor, authorizing the University to archive, reproduce and distribute the thesis.

Thesis/Major Paper Requirements Synopsis

1) Thesis or Major Paper format must be as prescribed by *Procedures to Follow in Preparing a Major Paper, Thesis or Dissertation*.

2) Copies of the thesis for Master's degree must be provided to all committee members, and one copy to the chair of the defense at least two weeks before the oral presentation prior to the Convocation at which the candidate has applied to receive the degree.

3) Public notice of the defense must be received in the Office of Graduate Studies and Research at least eight days in advance of the defense date.

4) Following successful defense, the candidate will deposit copies of the thesis in the Office of Graduate Studies and Research for binding and distribution (two for the Leddy Library, and one for the academic unit).

5) The candidate will validate Form NL/BN59/02, supplied by the Office of Graduate Studies and Research, authorizing the National Library to produce single copies. The title page of the thesis, or a separate page following, must bear the Universal Copyright Convention symbol ©, full name of author, and year the Master's degree was granted.

6) Copyright application and microproduction by the National Library do not apply for the major paper. Two copies are required to be deposited in the Office of Graduate Studies and Research (one for the Leddy Library, one for the program).

7) Fees for the above are to be paid at the time of deposit of the thesis or major paper in the Office of Graduate Studies and Research.

EXAMINATIONS

In addition to the usual examinations on course work, there are three types of special examinations that may apply in some programs leading to the Master's degree:

1) *Qualifying Examinations*: A qualifying examination is one in which the student is asked to demonstrate a reasonable mastery of the fundamentals in the major subject; it is designed to test the student's preparation for advanced graduate work. If such an examination is required, it must be administered and passed before the student registers for the final year of Master's work.

2) *Comprehensive Examinations*: The comprehensive examination is one in which the student is asked to demonstrate a reasonable mastery of the field of specialization; it is designed to test the student's command of knowledge and ability to integrate that knowledge, after completion of all or most of the graduate course work. Normally, this examination is written at the end of the student's final year of study for the Master's degree.

3) *Final Examinations*: The final examination of a candidate for a Master's degree is an oral defense of the thesis, major paper, or project.

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Research Institutes

THE GREAT LAKES INSTITUTE

The Great Lakes Institute for Environmental Research (GLIER) is a world-class combination of researchers, graduate programs, facilities and location - on the Canada-US border at the heart of the world's most economically significant freshwater system.

GLIER research is currently focussed on two interrelated themes that assess the impact of multiple stressors on large lakes and their watersheds. The stressors include metal and organic chemical contamination, species invasions, climate change, harvesting of populations, nutrient enrichment, and habitat destruction. The themes are environmental chemistry and toxicology, and conservation and resource management.

GLIER's 5200 m², tri-level, dedicated facility on the Detroit River is without parallel in Canada. It includes over 25 extensively equipped laboratories, offices for researchers and post-doctoral and graduate students, and conference and meeting rooms. GLIER maintains a private boat launch on the Detroit River and has dedicated boats.

GLIER has the distinction of housing the only university-based environmental analytical laboratory in Canada accredited by the Canadian Association of Environmental Analytical Laboratories (CAEAL) to international standards of performance.

Further details of activities and facilities appear on GLIER's website at www.uwindsor.ca/glier.

The Environmental Science graduate programs are offered through GLIER. See [Environmental Science](#).

FLUID DYNAMICS RESEARCH INSTITUTE

The Fluid Dynamics Research Institute was founded to foster interdepartmental and inter-Faculty research and postgraduate teaching related to the dynamics of fluids. Members conduct basic and applied research, and are committed to providing a broad training for graduate students in all aspects of fluid mechanics and heat transfer. Members are drawn from Mechanical Engineering, Civil and Environmental Engineering, and Applied Mathematics. Research ranges from theoretical studies on stability and exact solutions to enhancement of flow measurement techniques to implementation of commercial computer codes and development of new codes for industrial problems. Application areas include civil engineering, environmental engineering, the automotive, defence and petroleum industries, biomechanics and aeronautics.

Graduate students affiliated with Institute members in their research projects will register in the member's department and complete the degree requirements of that department.

Further details are available from <http://venus.uwindsor.ca/research/fdri/index.htm>.

Faculty

- Biological Sciences:
Programs

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Courses

Odette School of Business:
Graduate Faculty

- Business: Programs

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Chemistry and Biochemistry:
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Communication Studies:
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Computer Science: Graduate
Faculty

- Computer Science:
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Earth Sciences: Graduate
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- Earth Sciences: Programs

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Economics: Graduate Faculty

- Economics: Programs
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Faculty of Education: Graduate Faculty

- Education: Programs
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Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

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Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
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Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

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Faculty of Nursing: Graduate
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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

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- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
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Psychology: Graduate Faculty

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Social Work: Graduate
Faculty

- Social Work: Programs
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General Courses, Faculty of Graduate Studies and Research

The Theory and Practice of University Teaching

This is an introductory course designed for graduate students to enable participants to perform more effectively as university teachers, as seminar leaders, as in-service trainers, and as public speakers. Empirical principles of learning and teaching will be introduced that are appropriate to the university classroom. Educational research will guide the approach taken in the course and will be used as the theoretical basis for course content. This course is a non-credit course and, upon successful completion, will appear on the student's transcript.

The following course is offered through the Humanities Research Group and the Office of the Dean of the Faculty of Graduate Studies and Research.

09-599. Interdisciplinary Master's Seminar

This course will offer graduate students in English, History, Philosophy, Political Science, Psychology, Sociology, Visual Arts, and any other graduate program with a humanities component, the opportunity, in the course of their intensive, discipline-oriented training, to benefit from an interdisciplinary experience. Topics will vary from year to year (Offered over two terms.)

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BIOLOGICAL SCIENCES

GRADUATE FACULTY

Professor Emeritus

Warner, Alden H.; B.A. (Maine), M.A., Ph.D. (Southern Illinois)-1965.

Professors

Ciborowski, Jan J. H.; B.Sc., M.Sc. (Toronto), Ph.D. (Alberta)-1984.

Haffner, G. Douglas; B.Sc. (Queen's), Ph.D. (London, England)-1986.

Corkum, Lynda D.; B.A., M.A. (Drake), Ph.D. (Toronto)-1987.

Lovett Doust, Jonathan N.; B.Sc. (Queen's), Ph.D. (Wales)-1988.

Zielinski, Barbara; B.Sc., M.Sc. (Waterloo), Ph.D. (Manitoba)-1990.

MacIsaac, Hugh J.; B.Sc. (Windsor), M.Sc. (Toronto), Ph.D. (Dartmouth)-1992.

Heath, Daniel; B.Sc., M.Sc. (McGill), Ph.D. (British Columbia)-2000.

Crosby, William L.; B.Sc. (U.B.C.), Ph.D. (Heriot-Watt)-2004. (Head)

Wahlsten, Douglas L; B.Sc. (Alma College), Ph.D. (California)-2004.

Associate Professors

Crawford, Michael J; B.Sc., M.Sc., Ph.D. (Toronto)-1997.

Hubberstey, Andrew V.; B.Sc. (Waterloo), M.Sc., Ph.D. (Guelph)-1997.

Assistant Professors

Doucet, Stéphanie; B.Sc., M.Sc. (Queen's) Ph.D. (Auburn)-2006

Drouillard, Ken G.; B.Sc. (Windsor), M.Sc. (Manitoba), Ph.D. (Trent)-2002.

Higgs, Dennis M.; B.Sc. (Michigan State), M.Sc. (Northern Illinois), Ph.D. (Texas)-2003.

Hudson, John W.; B. Sc., M.Sc. (McMaster), Ph.D. (York)-2003.

Porter, Lisa A.; B.Sc., Ph.D. (McMaster)-2004.

Mennill, Daniel; B.Art.Sc. (McMaster), Ph.D. (Queen's)-2005.

VanLaerhoven, Sherah; B.Sc., M.P.M. (SFU), Ph.D. (Arkansas)-2003.

Faculty

• Biological Sciences: Programs

Pitcher, Trevor E.; B.Sc., M.Sc. (York), Ph.D. (Toronto)-2006.

Swan, Andrew; B.Sc. (Alberta), Ph.D. (McGill)-2006.

• Biological Sciences: Courses

Zhang, Huiming; B.Sc., M.Sc., Ph.D. (Fudan)-2006.

Adjunct Professors

Odette School of Business: Graduate Faculty

Dufresne, Michael J. P.; B.Sc. (York), Ph.D. (Alberta)-1976.

Henderson, Bryan; B.Sc., M.Sc. (UBC), Ph.D. (Aberdeen, Scotland)-2002.

• Business: Programs

Shipp, J. Les; B.Sc., M.Sc. (Guelph), Ph.D. (Iowa State)-2005.

• Business: Courses

Lovett, Doust, Lesley; B.Sc. (Edinburgh), Ph.D. (Wales) -1991
Adjunct Associate Professors

Chemistry and Biochemistry: Graduate Faculty

Mackey, Scudder; B.Sc (Hobart College), M.Sc. (Wisconsin-Madison), Ph.D. (New York) 2006

• Chemistry and Biochemistry: Programs

Adjunct Assistant Professors

• Chemistry and Biochemistry: Courses

Johnson, Timothy; B.Sc. (Guelph), M.Sc. (York), Ph.D. (Wisconsin)-1998.

Ludsin, Stuart Allen; B.Sc. (Miami), M.Sc. (Auburn), Ph.D. (Ohio)-2003.

Mandrak, Nicholas Edward; B.Sc., M.Sc., Ph.D. (Toronto)-2003.

Communication Studies: Graduate Faculty

Therriault, Thomas W.; B.Sc. (Wilfrid Laurier), M.Sc. (Memorial), Ph.D. (McMaster)-2005.

• Communications Studies: Programs

Nett, Bryan, B.Sc., Ph.D. (Toronto)-2006

• Communication Studies: Courses

Yu, Kangfu; B.Sc. (China), M.Sc., Ph.D. (Guelph) - 2006

Computer Science: Graduate Faculty

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THE DOCTOR OF PHILOSOPHY DEGREE

[Statistics Canada Disclaimer](#)

In addition to the general requirements, the following requirements must be met by all students proceeding to the Ph.D. degree.

Admission Requirements

[Important Dates: 2007-08](#)

Applicants with an honours degree in Biological Sciences or related field and who have been judged to be outstanding students may be admitted directly into the Ph.D. program. Applicants holding an M.Sc. degree or equivalent from the University of Windsor or from another recognized university or college may be admitted to the Ph.D. program with advanced standing in course work as described below.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Program Requirements

[Programs Offered - Overview](#)

Course Work: Students proceeding toward the Ph.D. degree will follow one of the programs given below:

[Application Procedures](#)

1) Students proceeding directly to the Ph.D. from an Honours B.Sc. degree will be expected to:

[Faculty Regulations](#)

- (a) comply with the general regulations;
- (b) attend all departmental seminars in Biological Sciences (formal presentations of visiting speakers; graduate student seminars, thesis defense presentations and dissertation defense presentations) each year of full-time registration;
- (c) present a departmental seminar in each year of enrollment (the dissertation defense may count as one of these);
- (d) successfully complete a minimum of four graduate courses. With the approval of the Doctoral Committee, courses may be in a cognate area. Statistics [65-453](#) (Statistics for Life/Social Sciences) may be allowed for graduate credit;
- (e) complete a dissertation embodying the results of an original investigation;
- (f) defend the dissertation at a public lecture or seminar.

[The Degree of Doctor of
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[The Master's Degree](#)

Students recommended and approved for transfer into the Ph.D. program after having completed one year of an M.Sc. degree in Biological Sciences at the University of Windsor will normally receive credit for graduate course work completed during the M.Sc. program.

[Research Institutes](#)

2) Students entering into a Ph.D. program with an M.Sc. degree will be expected to:

[General Courses, FGSR](#)

- (a) comply with the general requirements;
- (b) attend all departmental seminars in Biological Sciences (formal presentations of visiting speakers, graduate student seminars, thesis defense presentations and dissertation defense presentations) each year of full-time registration;
- (c) present a departmental seminar in each year of enrollment (the dissertation defense

[Biological Sciences: Graduate](#)

Faculty

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Odette School of Business: Graduate Faculty

• Business: Programs

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Chemistry and Biochemistry: Graduate Faculty

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Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

may count as one of these);

(d) successfully complete a minimum of two graduate courses for a minimum total of five (5) courses for the M.Sc. and Ph.D. combined. With the approval of the Doctoral Committee, courses may be in a cognate area. Statistics 65-453 (Statistics for Life/Social Sciences) may be allowed for graduate credit;

(e) complete a dissertation embodying the results of an original investigation;

(f) defend the dissertation at a public lecture or seminar.

Grading: A student must maintain at least B- standing in each course in Biological Sciences and at least a B- average in any non-Biological Sciences courses. Any student whose performance is deemed unsatisfactory in course work or research will be asked to withdraw.

Doctoral Committee: Within the first term of the student's registration, the doctoral committee will be formed except for the external examiner, who is to be appointed during the student's final year of study/research. The full committee will consist of at least five members; one must be from outside the University, one from the University faculty but outside Biological Sciences, and three must be within Biological Sciences. The research advisor will act as chairperson of this committee. The student should meet with individual committee members on an informal basis at least twice a year.

The doctoral committee must meet for the following:

- (a) to review and approve course work and the research proposal no later than six months into the program;
- (b) to prepare and administer the comprehensive examination within the first two years of the student's registration in the program;
- (c) to discuss the student's progress within two months after the comprehensive examination. (The extramural committee member need not participate.);
- (d) to discuss the student's research and dissertation at least two months before the anticipated time of the final oral examination;
- (e) the final oral examination.

Research Progress: Each year from the date of initial registration, the student must submit a Research Progress Report to and meet with his or her doctoral committee. In addition, the student must review his or her research in a meeting with the doctoral committee at least six months before the anticipated date of the final oral examination.

Dissertation: Six months before the anticipated date of the final oral examination the student must review the research and dissertation in a meeting with the committee.

A dissertation embodying the results of an original investigation in the student's major field is required of all candidates. The dissertation is expected to be of a quality suitable for publication in a refereed biological journal.

Examinations:

(a) *Comprehensive Examination:* The primary purpose of the Comprehensive Examination is to ensure that the student demonstrates both a reasonable mastery of the field of specialization, and knowledge of broader areas of Biology; it is designed to test the student's command of knowledge and ability to integrate that knowledge. This examination must be completed within two years of the student's initial registration in the program. Prior to the examination, the student will have provided the doctoral committee with a written proposal outlining the background, approach and general expectations of the intended research project; however the Comprehensive Examination is not intended to be, and should not be limited to, a defense of this proposal. The Comprehensive Examination will normally be an oral examination administered by the doctoral committee, and chaired by the Biological Sciences Graduate Coordinator (or designate). The student's Academic Advisor will communicate

Economics: Graduate Faculty

- Economics: Programs
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Faculty of Education: Graduate Faculty

- Education: Programs
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Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
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Electrical Engineering: Graduate Faculty

- Electrical Engineering:
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Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
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Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
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the results of the examination and any recommendations to the student, and to the Biology Graduate Committee. Following the Comprehensive Examination the doctoral committee may assign the student appropriate remedial or supplementary course work. Successful completion of the examination and any remedial studies or course work recommended by the doctoral committee is prerequisite to the student's admission to candidacy in the doctoral program.

(b) Finally, the student will be re-requested to defend the dissertation orally at a public lecture or seminar (final oral examination).

THE MASTER OF SCIENCE DEGREE

Admission Requirements

1) Applicants with an honours degree in Biological Sciences or a related field may be admitted to the Master's Candidacy (M2) program.

2) Applicants with a general B.Sc. degree in Biological Sciences or a related field may be admitted to the Master's Qualifying (M1) program.

Program Requirements

1) Students admitted to the Master's Candidacy program will be expected to:

- (a) comply with the general regulations;
- (b) attend all departmental seminars in Biological Sciences (formal presentations of visiting speakers, graduate student seminars, thesis defense presentations and dissertation defense presentations) each year of full-time registration;
- (c) present a departmental seminar in each year of enrollment (the thesis defense may count as one of these);
- (d) successfully complete a minimum of two graduate courses with approval of the Master's Committee, courses may be in a cognate area. Statistics [65-453](#) (Statistics for Life/Social Sciences) may be allowed for graduate credit;
- (e) complete an original research project and embody it in a thesis;
- (f) defend the thesis orally at a public lecture or seminar.

2) Students admitted to the Master's Qualifying program, besides meeting the minimum requirements of the Master's Candidacy program, are expected in the first year of the two-year program to achieve a level of qualification equivalent to an honours degree through research and a minimum of four courses.

3) *Grading:* A student must maintain at least a B- average in each Biological Sciences course and at least a B- average in any non-Biological Sciences courses.

4) *Master's Committee:* Within one term of the student's registration in the program, the research committee will be formed and the names submitted to the Dean of Graduate Studies and Research. The full committee will consist of at least three members - the research supervisor, one other faculty member from within Biological Sciences, and one University faculty member from outside of Biological Sciences.

The student should meet with individual committee members on an informal basis at least twice a year. The committee, in turn, must meet to:

- (a) review and approve course work and the research proposal no later than six months into the program;
- (b) discuss the student's research and thesis at least six months before the anticipated time of the final oral examination;
- (c) participate in the final oral examination.

- [IMSE: Courses](#)

[Mechanical Engineering:
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- [Mechanical Engineering:
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Courses](#)

Research Progress: Each year from the date of initial registration, the student must submit a Research Progress Report to and meet with his or her Master's committee. In addition, the student must review his or her research in a meeting with the Master's committee at least six months before the anticipated date of the final oral examination.

Research Thesis: A thesis embodying the results of an original investigation in the student's major field is required of all candidates. The student must defend the thesis orally at a public lecture or seminar, which will be the final oral examination.

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Political Science: Graduate
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Psychology: Graduate Faculty

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BIOLOGICAL SCIENCES: COURSE DESCRIPTIONS

[PROGRAMS OF STUDY
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All courses listed will not necessarily be offered each year.

Biological Sciences provides three types of courses, each with a different primary purpose and format.

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1) *Fundamentals Courses*: Fundamentals courses cover subject matter that is considered central to a comprehensive knowledge of principles and theories in the department's areas of research emphasis. The scope of these courses extends beyond that provided at the undergraduate level. These courses may entail formal lectures, laboratory instruction and/or directed readings and discussion, but the onus is on the course instructor to ensure that students are exposed to balanced and comprehensive coverage of the range of topics considered to represent the field. Because of their central importance to the Biological Sciences, these courses are offered on a regular, recurring basis.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

2) *Special Topics Courses*: Special topics courses provide detailed expertise in theory and/or techniques in areas of researchers' expertise that are especially relevant to students' thesis research. Although no less rigorous than fundamentals courses, these courses may provide greater depth of information over a narrower subject range. The scope of these courses extends beyond that provided at the undergraduate level. These courses may involve a combination of lectures, laboratories, discussion, readings and/or student presentations under the guidance of the instructor. A Special Topics course will have an explicit subtitle indicating the theme of a particular offering. Some Special Topics courses will be offered each year. The themes will vary among years to reflect the expertise of the instructors available and the current needs of the graduate students.

[Programs Offered - Overview](#)

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3) *Selected Readings Courses*: The primary goal of the Selected Readings courses is to develop students' skill in objective, critical analysis of scholarly work among individuals with broadly similar research interests and backgrounds. An equally important aspect of these courses is to promote interaction among students and faculty and to help participants become aware of new research across a range of subdisciplines. The role of students in selecting and presenting relevant material is central to these courses.

[The Degree of Doctor of
Philosophy](#)

55-516. Techniques in Molecular Biology

[The Master's Degree](#)

A course designed to introduce the student to a variety of biochemical, cellular, and molecular techniques. This course is composed of a series of topics from which students are required to participate in a minimum of four. The topics include: chromatography, electrophoresis, immunocytochemistry, electron microscopy, cell culture, cloning and nucleic acid analysis, computer-based protein and nucleic acid analysis, and radioisotope methods. Students should consult with their research advisors and supervisory committees in choosing the topics for study. (Prerequisite: consent of instructor.) (2 lecture hours, 4 laboratory hours a week for selected experiments during the year, both terms.) (One term course credit.) (Offered in alternative years.)

[Research Institutes](#)

[General Courses, FGSR](#)

55-518. Experimental Design and Analysis in Biological Research

[Biological Sciences: Graduate](#)

Discussion of philosophical and quantitative approaches used to investigate biological

Faculty	systems, with emphasis on design and implementation of efficient and unbiased experiments. Students will use expertise acquired in lectures and readings to constructively evaluate their own and others' research proposals through round table discussions and individual presentation. (Prerequisite/corequisite: 55-320 , or consent of instructor.) (2 discussion hours a week.)
• Biological Sciences: Programs	
• Biological Sciences: Courses	55-520. Selected Readings in the Biological Sciences Current publications on common themes of potential significance in students' area of study will be chosen for round table oral presentation and discussion. Multiple sections, each with enrollment of 8-12 students will be offered in the fall term of each year as required. This course is intended for graduate students in Biological Sciences only. (2 discussion hours a week.)
Odette School of Business: Graduate Faculty	
• Business: Programs	55-521. Selected Readings in the Biological Sciences Current publications on common themes of potential significance in students' area of study will be chosen for round table oral presentation and discussion. Multiple sections, each with enrollment of 8-12 students will be offered in the winter term of each year as required. This course is intended for graduate students in Biological Sciences only. (2 discussion hours a week.)
• Business: Courses	
Chemistry and Biochemistry: Graduate Faculty	
• Chemistry and Biochemistry: Programs	55-528. Molecular Biology of Growth and Development I An analysis at the molecular level of the growth and development of prokaryotes, lower eukaryotes, and their plasmids. (Required: consent of instructor.) (2 discussion hours a week.) (Offered in alternate years.)
• Chemistry and Biochemistry: Courses	55-529. Molecular Biology of Growth and Development II An analysis at the molecular level of the growth and development of plants and animals. (Required: consent of instructor.) (2 discussion hours a week.) (Offered in alternate years.)
Communication Studies: Graduate Faculty	
• Communications Studies: Programs	55-570. Fundamental Topics in Population and Evolutionary Biology Major topics may include the evolution of mating systems, population structure and demography, population genetics and life history variation, theory of optimal resource use. (Prerequisite/corequisite: 55-324 , or consent of instructor.) (3 lecture/discussion hours a week.) (Offered in alternate years.)
• Communication Studies: Courses	55-581. Fundamental Topics in Community Biology Major topics include niche and diversity theory, trophic complexity and community stability, assembly of guilds, ecosystem structure and function, biogeography. (Prerequisite/corequisite: 55-325 , or consent of instructor.) (3 lecture/discussion hours a week.) (Offered in alternate years.)
Computer Science: Graduate Faculty	
• Computer Science: Programs	55-601. Special Topics in Molecular and Developmental Biology This is a regularly offered course covering subjects that reflect current graduate program needs and departmental expertise in specific areas. The course addresses one or more theme subjects in any particular term. Students receive a course credit for each term in which they register for this course provided that a particular theme is not repeated. Where a theme parallels an undergraduate course listing, students may be required to attend some portion of the undergraduate course as a prerequisite or corequisite. Subjects that may be offered as special topics include but are not limited to the following: biology of cell transformation; electron microscopy; genetic engineering and its applications; advanced topics in immunochemistry; advanced topics in microbial physiology and ecology; advanced topics in physiology; plant hormones and development; virology. (Prerequisite: consent of instructor.) (2-3 discussion hours and/or up to 5 laboratory hours a week.)
• Computer Science: Courses	55-602. Special Topics in Population and Environmental Biology This is a regularly offered course covering subjects that reflect current graduate program needs and departmental expertise in specific areas. The course addresses
Earth Sciences: Graduate Faculty	
• Earth Sciences: Programs	
• Earth Sciences: Courses	

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

one or more theme subjects in any particular term. Students receive a course credit for each term in which they register for this course provided that a particular theme is not repeated. Where a theme parallels an undergraduate course listing, students may be required to attend some portion of the undergraduate course as a prerequisite or corequisite. Subjects that may be offered as special topics include but are not limited to the following: animal behaviour; advanced topics in aquatic ecology; biogeography, conservation biology, ecotoxicology, quantitative ecology. (Prerequisite: consent of instructor.) (2-3 discussion hours and/or up to 5 laboratory hours a week.)

55-603. Special Topics in Biological Sciences I

Special Topics in the Biological Sciences courses may be used to introduce a new graduate offering, typically on a "trial" basis. Approved courses taken at Wayne State University or elsewhere, or courses offered by visiting professors may also fall into the category of Special Topics in the Biological Sciences. A limited number of these courses may be included in the program of graduate student.

55-604. Special Topics in Biological Sciences II

Special Topics in the Biological Sciences courses may be used to introduce a new graduate offering, typically on a "trial" basis. Approved courses taken at Wayne State University or elsewhere, or courses offered by visiting professors may also fall into the category of Special Topics in the Biological Sciences. A limited number of these courses may be included in the program of a graduate student.

55-797. Thesis Research

An original research project embodied into a concisely written thesis which conforms to the style and format of a recognized journal in the field of specialization. The student should register for this course during each term (including Summer) of residency at the University; however, this course may not be used for credit toward fulfilling the course requirements in the Master's program.

55-798. Dissertation Research

An original research investigation the results of which will be embodied in a concisely written dissertation conforming in style and format to a recognized journal in the field of specialization. The final paper should be of the highest quality possible and suitable for publication. The doctoral student should register for this course commencing the summer term of the first year of residency and subsequently for each term during which dissertation research will be carried out. In no case, however, may this course be used for credit toward fulfilling the course requirements in the Ph.D. program.

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[English: Graduate Faculty](#)

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Philosophy: Graduate Faculty

- Philosophy: Programs
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Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

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Sociology: Graduate Faculty

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Odette School of Business

GRADUATE FACULTY

Professor Emeriti

Brill, Percy; B.Sc. (Carleton), M.A. (Columbia), Ph.D. (Toronto)-1984.

Armstrong-Stassen, Marjorie; B.S., M.L.H.R., Ph.D. (Ohio State)-1989.

Professors

Faria, Anthony John; B.S., M.B.A. (Wayne State), Ph.D. (Michigan State)-1975.

Dickinson, John R.; B.S.B.A., M.B.A., D.B.A. (Indiana)-1980.

Thacker, James W.; B.A. (Winnipeg), M.A., Ph.D. (Wayne State)-1982.

Kantor, Jeffrey; B.Sc., B.Comm. (Hons.) (Cape Town), C.P.A., C.A. (Ontario), Ph.D. (Bradford, England)-1983.

Aneja, Yash Paul; M.S., B.S. (Indian Statis-tical Inst.), Ph.D. (Johns Hopkins)-1984.

Templer, Andrew; B.A. (Hons.) (Witwaters-rand), M.A. (South Africa), M.Sc. (London), Ph.D. (Witwatersrand)-1984.

Singh, Jang; B.A. (Toronto), M.A. (College of St. Thomas), M.B.A. (Windsor), M.A., Ph.D. (Toronto)-1986.

Withane, Sirinimal; B.Sc. (Sri Jayawarden-pura), M.Sc. (Moratuwa University), M.A. (Carleton), Ph.D. (Rockefeller College, SUNY)-1986.

Ursel, Nancy D.; B.Comm. (McGill), M.B.A. Ph.D. (Concordia)-1989.

Hussey, Roger D.; M.Sc., Ph.D. (Bath)-2000.

Fleisher, Craig; B.S.B.A. (Florida), M.B.A. (Vanderbilt), Ph.D. (Pittsburgh)-2002. (Odette Research Chair)

Associate Professors

Cattaneo, R. Julian; Licenciado (Buenos Aires), Ph.D. (Michigan)-1980.

Rieger, Fritz; B.S. (Manhattan), M.B.A. (Columbia), Ph.D. (McGill)-1984.

Forrest, Anne; B.Sc., M.I.R. (Toronto), Ph.D. (Warwick)-1985.

Reavley, Martha; B.Comm., M.B.A. (Win-dsor), Ph.D. (Wayne State)-1986.

Faculty	Wellington, William; B.Sc. (Western Ontario), M.B.A. (Windsor), Ph.D. (Michigan State)-1986.
• Biological Sciences: Programs	Lan, George; B.S. (Beloit College), M.A. (Smith College), M.B.A. (Tulane University), Ph.D. (Queens)-1988.
• Biological Sciences: Courses	Lin, Howard Xiaohua; B.A. (Central National University), M.Sc. (Chinese Academy of Social Sciences), Ph.D. (Oklahoma State)-2001.
Odette School of Business: Graduate Faculty	Ong, Audra; B.Sc. (Queen's Belfast), M.B.A. (Wales), Ph.D. (West of England, Bristol)-2000.
• Business: Programs	Assaf, Ata; B.A. (Lebanese U.), D.H.S., M.A. (Western Ontario), Ph.D. (McGill)-2002.
• Business: Courses	Pathak, Jagdish; B.Comm., M.Comm. (Rajasthan), Ph.D. (Goa)-2002.
Assistant Professors	
Chemistry and Biochemistry: Graduate Faculty	Kao, Diana; LL.B. (National Cheng-Chi), Dipl.Acc. (Wilfrid Laurier), M.B.A. (McMaster), Ph.D. (Western Ontario)-1990.
• Chemistry and Biochemistry: Programs	Sinha, Rajeeva; B.A. (Patna, India), M.A. (JNU, India), Ph.D. (Warwick)-2000.
• Chemistry and Biochemistry: Courses	Kerr, Gerald; B.A. (Western Ontario), B.A., B.Admin. (Brock), M.B.A. (McMaster), Ph.D. (York)-2001.
	Al-Hayale, Talal H. S.; B.Sc. (Mosul, Iraq), M.A., Ph.D. (Wales, UK)-2002.
Communication Studies: Graduate Faculty	Baki, Mohammed; B.Sc. (Bangladesh Inst. Of Technology), M.B.A. (Dhaka), M.B.A. (New Brunswick), Ph.D. (Waterloo)-2002.
• Communications Studies: Programs	Cheung, Keith C.K.; B.A., M.A., Ph.D. (York)-2003.
• Communciation Studies: Courses	Lee, Jonathan C.; B.A. (Hons.), M.B.A. (Windsor), Ph.D. (South Carolina)-2003.
	Moro, Francisco Baptista Pereira; B. Sc. (PUC-RS, Brazil), M.Eng., Dr.Eng. (UFSC, Brazil), Ph.D. (Wisconsin)-2003.
Computer Science: Graduate Faculty	Schlosser, Francine; B.B.A. (Wilfrid Laurier), M.B.A. (Windsor), Ph.D. (Waterloo)-2004.
• Computer Science: Programs	Gowing, Maureen; B.A. (Carleton), M.B.A. (Toronto), Ph.D. (Queen's)-2005.
• Computer Science: Courses	Li, Kevin W.; B.Sc., M.A.Sc. (Xiamen), Ph.D. (Waterloo)-2005.
	Ma, Zhenzhong; B.Comm., M.A. (Beijing), Ph.D. (McGill)-2005.
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Political Science: Graduate
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Psychology: Graduate Faculty

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ODETTE SCHOOL OF BUSINESS: PROGRAMS OF STUDY

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[Business Administration \(MBA\) \(Co-operative Education\)](#)
[Business Administration \(MBA\) \(Fast-Track\)](#)
[Business Administration \(MBA\) \(For Managers and Professionals\)](#)
[Business Administration/Bachelor of Laws \(Integrated MBA/LLB\)](#)
[Master of Management \(MM\)](#)

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THE MASTER OF BUSINESS ADMINISTRATION DEGREE

[Important Dates: 2007-08](#)

The purpose of the Master of Business Administration program is to provide broad graduate study in the general field of business administration. It provides students with three important components to prepare them for management positions; academic knowledge, job skills and work experience.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Graduate students have the opportunity of expanding their accounting, administrative, finance, marketing, management science and strategy expertise. The program emphasizes knowledge that prepares students for careers in private industry and business, for the public service, and for doctoral studies.

[Programs Offered - Overview](#)

Admission Requirements

[Application Procedures](#)

1) Applicants who have secured satisfactory standing (at least a B- average) in their undergraduate work may be admitted. Major consideration is given to the performance during the last two years of the undergraduate program. Applicants without an undergraduate degree who hold a professional qualification such as (for example) C.G.A., C.M.A., or C.H.R.P. and a minimum of five years' experience in their profession may be considered for admission to the MBA program. Possession of the minimum requirements for admission does not ensure acceptance.

[Faculty Regulations](#)

[The Degree of Doctor of
Philosophy](#)

Students must write the GMAT before applying for admission to the Faculty. Applicants who hold an M.B.A or a Ph.D. from a foreign University (or equivalent degree) in any discipline will not be required to write the GMAT. (Details of the Test may be obtained from The Educational Testing Service, Princeton, New Jersey, 08540.) The order form for the Bulletin of Information for the GMAT is available in the Office of the Registrar and in the M.B.A office.

[The Master's Degree](#)

[Research Institutes](#)

2) Graduates from a four-year Honours program in Commerce or Business Administration who, in the opinion of the Odette School of Business, have covered an adequate program of studies, may be admitted to the candidate year in the Fast Track M.B.A. program provided they have obtained satisfactory standing (at least a B-average) in their undergraduate degree.

[General Courses, FGSR](#)

3) Students will be recommended for admission to the candidate year if they have maintained a B- average or better in the first year of the program.

[Biological Sciences: Graduate](#)

4) Students in the candidate year who maintain a B- average or better will qualify for the M.B.A. degree.

Faculty

• Biological Sciences:
Programs

• Biological Sciences:
Courses

Odette School of Business:
Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

• Chemistry and Biochemistry:
Programs

• Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

• Communications Studies:
Programs

• Communication Studies:
Courses

Computer Science: Graduate
Faculty

• Computer Science:
Programs

• Computer Science: Courses

Earth Sciences: Graduate
Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

Prerequisites

The prerequisites required for admission are: first-year university-level mathematics; micro- and macroeconomics. The mathematics prerequisite may be waived depending on an applicant's quantitative GMAT score. If the prerequisites have not been completed prior to admission, they must be completed during the first year of the program.

Fee Policy for M.B.A. Students Taking Undergraduate Economic Courses

M.B.A. students will pay undergraduate fees for undergraduate courses taken as prerequisites for admission if the courses are taken within the first three terms after admission. The undergraduate courses will not be counted towards the graduate degree.

Part-time Status

Students who are unable to complete the program on a full-time basis for health, family, or other reasons may, upon recommendation from the Odette School of Business, be permitted to continue their studies on a part-time basis.

Course Requirements

All two year programs (M.B.A and M.B.A Co-op) require eleven 500-level courses in the first year.

The second year of the two year programs and the one year program (M.B.A Fast Track Co-op) requires ten 600-level courses.

The major paper is weighted as two courses; the thesis as four. A student writing a major paper or thesis would require eight or six additional courses respectively. Fast Track students who do not complete a co-op work term will be required to complete a major paper in addition to the ten courses.

[75-698](#) is required of all MBA students.

Students will be allowed to pursue a general M.B.A. or choose one specific area of concentration. Areas of concentration include Business Strategy and Entrepreneurship, Finance, International Business, Marketing, Management and Labour Studies, Management Science and Production/Operations Management. To obtain an area of concentration, courses must be completed as follows:

BUSINESS STRATEGY AND ENTREPRENEURSHIP

[75-680](#). Managing the International Enterprise

[75-682](#). Manufacturing Strategy

[75-690](#). Entrepreneurship: New Venture Formation and Management

Plus any two of:

[75-692](#). Topics in Strategic Management

[74-639](#). Marketing Strategy and Planning

[71-613](#). Leadership and Organizational Change

FINANCE

[72-672](#). Cases in Financial Management

[70-651](#). Reporting, Analyzing, and Using Accounting Information

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Plus any three of:

72-670. Investment Analysis and Management
72-671. Portfolio Management
72-673. Topics in Finance
72-674. International Financial Management

INTERNATIONAL BUSINESS

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

71-643. International Management
72-674. International Financial Management
74-635. International Marketing Strategy
75-680. Managing the International Enterprise

Plus any one of:

45-566. International Political Economy
41-510. Theory of International Trade

or a Topics course with an international focus offered by any of the Areas

Faculty of Engineering: Programs of Study Overview

MARKETING

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

74-639. Marketing Strategy and Planning

Plus any three of:

74-631. Consumer Behaviour
74-632. Marketing Research
74-635. International Marketing
74-638. Special Topics in Marketing

Plus any one of:

72-672. Cases in Financial Management
75-680. Managing the International Enterprise
75-682. Manufacturing Strategy

or a Topics course being offered by one of the other Areas whose content is relevant to Marketing.

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

MANAGEMENT SCIENCE

73-603. Management Science Methods
73-605. Operations Management
73-606. Strategic Implementation for Technologies Management

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Plus any two of:

73-602. Topics in Management Science
60-537. Database Management Systems
60-538. Information Retrieval Systems
60-539. Emerging Non-traditional Database Systems
91-504. Advanced Operations Research I
91-505. Advanced Operations Research II
91-511. Stochastic Processes
91-502. Manufacturing Systems Simulation
91-500. Optimization
91-503. Production and Inventory Control Systems
91-508. Reliability Engineering

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

MANAGEMENT AND LABOUR STUDIES

71-613. Leadership and Organizational Change
71-643. International Management

<ul style="list-style-type: none">• IMSE: Courses	<p>71-646. Business Negotiations and Problem Solving 71-647. Managing Diversity in the Work-place</p>
<p>Mechanical Engineering: Graduate Faculty</p>	<p>Plus any one of: 71-648. Topics in Management and Labour Studies 95-500. Sport Leadership</p>
<ul style="list-style-type: none">• Mechanical Engineering: Areas of Specialization• Mechanical Engineering: Courses	<p><i>PRODUCTION/OPERATIONS MANAGEMENT</i></p> <p>73-604. Operations Management 75-682. Manufacturing Strategy</p> <p>Plus any three of: 73-602. Topics in Management Science 74-631. Consumer Behaviour 75-680. Managing the International Enterprise 41-531. Industrial Organization 91-509. Computer-Integrated Manufacturing 91-512. Flexible Manufacturing Systems</p>
<p>English: Graduate Faculty</p> <ul style="list-style-type: none">• English: Programs• English: Courses	<p><i>THE MAJOR PAPER</i></p> <p>Students may choose a major paper option. All students choosing this option must have a detailed major paper proposal approved by at least two faculty members in the Odette School of Business. These two faculty members will have primary responsibility for supervising the student's work. The approved proposal application form must be submitted to the Assistant to the Dean in order to register for the major paper (76-796). An oral defence will be required.</p> <p>The major paper will be graded, will receive six credits and will substitute for two 600-level course electives.</p>
<p>Environmental Science (GLIER): Graduate Faculty</p> <p>ES: Programs</p> <p>ES: Courses</p>	<p><i>THE THESIS</i></p> <p>Students may choose a thesis option. All students choosing this option must have a detailed thesis proposal approved by at least two faculty members in the Odette School of Business and by one faculty member external to the School but from within the University. An oral defence will be required (see 1.6.2, Committees).</p> <p>The thesis will be graded, will receive twelve credits and will substitute for four 600-level course electives.</p>
<p>History: Graduate Faculty</p> <ul style="list-style-type: none">• History: Programs• History: Courses	<p><i>Professional Accounting Designation</i></p> <p>Students who are interested in pursuing both a professional accounting designation (<i>i.e.</i>, C.A., C.M.A., or C.G.A.) and the M.B.A. are advised to complete their accounting course requirements while being registered in the Bachelor of Commerce for University Graduates program and then to apply for admission directly to the candidate year of the M.B.A. program (Fast-Track M.B.A.)</p>
<p>Faculty of Human Kinetics: Graduate Faculty</p> <ul style="list-style-type: none">• Kinesiology: Programs• Kinesiology: Courses	<p>MASTER OF BUSINESS ADMINISTRATION DEGREE CO-OPERATIVE EDUCATION</p> <p>Students have the opportunity to experiment with various areas of interest in a generalist capacity, or to focus on a specific area of interest. Although the Faculty will make every effort to match students with suitable employment, students are not guaranteed positions, and the availability of positions may vary with the state of the labour market.</p>
<p>Mathematics and Statistics: Graduate Faculty</p> <ul style="list-style-type: none">• Mathematics and Statistics: Programs• Mathematics and Statistics: Courses	<p>Following the completion of each work term, a work report is required. These reports</p>

Faculty of Nursing: Graduate Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

focus on a problem or problems at work as analyzed by the student in a significant academic analysis. These reports serve to develop solid communication skills. Guidelines regarding the content and format of the reports are determined by the Graduate Committee of the Odette School of Business. One report is required for each completed work term.

In addition to the normal admission requirements, students seeking admission to the Co-op program will be required to have an interview with a representative from the Centre for Career Education.

CO-OPERATIVE M.B.A. WORK/STUDY SEQUENCE

Qualifying Year

Fall Term

76-501. Interpersonal Dynamics
76-502. Core Concepts of Accounting Information I
76-503. Introduction to Financial Management
76-504. Quantitative Techniques in Management
76-505. Marketing Management
76-506. Managing Employees

Winter Term

76-510. Core Concepts of Accounting Information II
76-511. Research Methodology
76-512. Financial Management
76-513. Human Resources Management
76-514. Management Information Systems

Summer Term

76-701. M.B.A. Co-op Work Term I

Candidate Year

Fall Term

workshops, plus five 600-level Business courses

Winter Term

76-702. M.B.A. Co-op Work Term II

Summer Term

75-698. Strategic Management
workshops, plus four 600-level Business courses

REGULAR M.B.A. PROGRAM

This program is intended for those students not choosing the M.B.A. Co-op program (primarily students in the integrated M.B.A./LL.B. program). The academic portion is identical to the Co-op program and students will take their courses during the study terms for Co-op students.

FAST TRACK M.B.A. PROGRAM

This program is designed for students who have graduated from a four-year honours business program. Fast Track M.B.A. students are exempt from the first (qualifying) year of the regular program, entering directly into the second (candidate) year. It includes not only traditional academic course work but also a co-operative work placement with selected organizations. The program is purposely designed to provide practical knowledge based experience usually not available at an undergraduate level.

[• Visual Arts: Programs](#)

[• Visual Arts: Courses](#)

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[Like our new Web site?](#)

FAST TRACK M.B.A. PROGRAM STUDY SEQUENCE

Fall Term

[76-660](#). Management Skills Development
plus workshops and four 600-level Business courses

Winter Term

[76-711](#). Work Term

Summer Term

[75-698](#). Strategic Management
plus workshops and four 600-level Business courses

Students who are unable to complete the work term ([76-711](#)) will write a major paper ([76-796](#)).

INTEGRATED M.B.A./LL.B. PROGRAM

This special program provides students interested in a career which combines legal and business management skills with an opportunity to complete both the M.B.A. and the LL.B. degrees in four years. It is administered by the Integrated M.B.A./LL.B. Program Committee composed of representatives from the Odette School of Business, the Faculty of Law and the Faculty of Graduate Studies and Research.

The M.B.A integrated with the LLB program requires seven 600-level courses.

Admission Requirements

The admission procedure for the integrated program consists of two stages. At the first stage, students applying to the program must meet the admission requirements of both the M.B.A. and LL.B. programs. Therefore separate applications must be submitted to the Faculty of Law and the Faculty of Graduate Studies and Research for admission to the regular degree program in Law and the M.B.A. To facilitate academic and career planning, it is strongly suggested that these applications be made simultaneously. Students who are accepted to both the M.B.A. and LL.B. programs will be accepted to the integrated program, and will proceed to attend first year in either Faculty. Such students will be granted a deferred admission to the other Faculty in the program.

This special deferred admission will be revoked if the applicant's performance in the first program fails to meet the first-year academic standards of the program. In such case the applicant may re-apply for regular admission to the second degree program.

Applications will also be considered for entry to the program from candidates who are attending the first year of either the LL.B. or M.B.A. programs. They must meet the admissions requirements and application deadline for the program for which they are seeking entry.

Application Deadlines

Faculty of Law - November 1 (LL.B.)

Faculty of Graduate Studies and Research - June 1 (M.B.A.)

For application materials please contact each of the following separately:

For the LL.B.:

Ontario Law School Application Service

P.O. Box 1328

170 Research Lane

Guelph, Ontario
N1G 5E2
Telephone: (519) 823-5232
Website: www.ouac.on.ca/olsas

For the M.B.A.:
Odette School of Business
M.B.A. Admissions
University of Windsor
Windsor, Ontario
N9B 3P4
mba@uwindsor.ca
Website: www.uwindsor.ca/mba

TERM PLANNING

First and Second Years

The first two years of study in the integrated program will consist of the regular first-year programs of each faculty.

Third and Fourth Years

The third and fourth years of the integrated program will be devoted to required and elective courses offered in both the Faculty of Law and the Odette School of Business.

In the M.B.A. program students will be required to take five candidate-level courses. These must include [75-698](#) (Strategic Management) and four courses selected from a minimum of two of the following areas: Accounting, Management and Labour Studies, Finance, Management Science, Marketing, and Business Strategy and Entrepreneurship. In addition, the M.B.A. major paper or thesis must have a substantial legal component.

In the Faculty of Law, the student will enrol in courses for a minimum of forty credits. These must include Torts, Civil Procedure, one course from the Legal Perspectives Group, and one course requiring a substantial paper that must account for at least 50 percent of the student's grade in the course. The M.B.A. paper will ordinarily satisfy this requirement, subject to the approval of the Faculty of Law Academic Programs Committee.

In addition to the requirements outlined above, the candidate must choose three additional candidate-level M.B.A. courses or a further three law courses totalling at least nine credit hours or any equivalent combination. The student's elective choices shall be reviewed by the Integrated M.B.A./LL.B. Committee in light of the student's personal and career objectives, and the necessity of scheduling core business and law courses.

ADVANCEMENT

Continuation in the program is conditional on students meeting the following requirements:

First and Second Years: Standing in the top half of the class; no Faculty of Law course grade lower than C-.

Third and Fourth Years: In courses taken in the Odette School of Business, candidates must attain at least one A- or above grade and not receive any grades below B-. In courses taken in the Faculty of Law, candidates must attain in each year at least one grade of B- or above and must not receive any grade lower than C-.

Candidates who fail to meet the above standards may be advanced upon the approval of the Program Committee if such action is warranted. Candidates who either fail to advance from First to Second Year, Second Year to Third Year, Third to Fourth Year, or who choose to leave the program will be free to continue on for both degrees, but within normal degree requirements, and subject to any conditions set out by the two Faculties. Students who fail to advance or who leave the program after Third Year and who have taken the appropriate electives may petition the Odette School of Business to be allowed to complete the regular requirements for the M.B.A. degree.

YEAR	LAW STREAM	BUSINESS STREAM
I	Law I	Qualifying Year-M.B.A.
II	Qualifying Year-M.B.A.	Law I
III*	Candidate Year-M.B.A. Law II & III	Candidate Year-M.B.A. Law II & III
IV*	Candidate Year-M.B.A. Law II & III	Candidate Year-M.B.A. Law II & III

Please consult the Cashier's Office about the tuition structure and the Faculty of Graduate Studies and Research for inquiries about awards.

Students with an Honours Bachelor of Commerce Degree

Students holding an Honours B.Comm. degree may obtain both the LL.B. and M.B.A. degrees without the assistance of a special integrated program. However, by submitting applications simultaneously to both the Faculty of Law and the Faculty of Graduate Studies and Research and indicating an interest in the program, such students may be granted a deferred admission to whichever degree program he or she elects to take second. This special deferred admission will be revoked if the applicant's performance in the first program fails to meet the first-year academic standards of the program. In such case the applicant may re-apply for regular admission to the second degree program.

Note: The University reserves the right to make changes in the integrated program and any rules or regulations applying to it.

M.B.A FOR MANAGERS AND PROFESSIONALS

The M.B.A for Managers and Professionals is an accelerated program geared toward students who are employed full-time and have accumulated significant experience in management and business practices.

Admission Requirements

- 1) Four-year (honours) undergraduate degree;
- 2) Three years of work experience in managerial or professional positions;
- 3) Applicants must achieve a satisfactory score on the GMAT to be granted admission

to the MBA for Managers and Professionals. Applicants who hold an M.B.A from a non-Canadian University or a Ph.D. (or equivalent degree) in any discipline will not be required to write the GMAT. The GMAT requirement may be waived for applicants who can demonstrate the following: (1) Successful performance in a job that has an extensive quantitative component (comptroller, quality assurance supervisor, engineer, etc.); and (2) a B average or better in an undergraduate degree that emphasizes quantitative skills (such as Engineering, Mathematics, Statistics, and the like), or performance at the B or better level in a recent Mathematics or Statistics course at a recognized University. The GMAT will strengthen the application.

4) An applicant whose first language is not English and who has not worked in an English-speaking environment for at least three years would have to demonstrate adequate command of English by an appropriate score on the TOEFL, CAEL, or other recognized test;

5) Satisfactory performance on a personal interview. Interviews will be conducted for prospective students.

Students with an Honours B.Comm.

Applicants who have a four-year B.Comm. or equivalent business degree could be admitted directly to the second year of the Professional M.B.A if they meet the above criteria and furthermore:

- (a) have completed their degree no more than five years before the cut-off date for applications;
- (b) had an average grade of B or higher in their program.

Program Curriculum

Total courses: 20

As with the regular M.B.A. program, all required courses are offered by the Odette School of Business Administration. In this program students will follow a prescribed sequence of courses in cohort fashion, with no electives - an approach that is not uncommon in M.B.A. programs directed at working managers and executives.

Program Sequencing

Courses are scheduled on alternate weekends; contact time is supplemented by Web-based instruction and team assignments. Students complete two courses concurrently before moving to the next two courses.

Year 1

- [77-521](#). Core Concepts of Accounting I
- [77-522](#). Introduction to Financial Management
- [77-523](#). Quantitative Techniques in Management
- [77-524](#). Managing People in Organizations
- [77-525](#). Business Research Methods
- [77-531](#). Core Concepts of Accounting II
- [77-532](#). Financial Management
- [77-533](#). Management Information Systems
- [77-534](#). Managing Human Resources
- [77-535](#). Marketing Management

Year 2

- [77-620](#). Reporting, Analyzing, and Using Accounting Information
- [77-621](#). Leadership and Organizational Change
- [77-623](#). Maximizing the Value of the Organization

- [77-624](#). Managing in the International Arena
- [77-625](#). Strategic Management
- [77-626](#). Strategic Implementation for Technologies Management
- [77-627](#). Business Negotiation and Problem Solving
- [77-628](#). Entrepreneurship and Intrapreneurship
- [77-629](#). Current Issues in Business

MASTER OF MANAGEMENT

The Master of Management is a twelve-month program specifically designed for a cohort of international students. Students enrolled in the program select a concentration from one of the four following fields: 1) Manufacturing Management; 2) Logistics and Supply Chain Management; 3) Human Resource Management; and 4) International Accounting and Finance. Not all fields will necessarily be offered each year. For more information contact the Centre for Executive Education at www.uwindsor.ca/execed.

Admission Requirements

Admission to the Master of Management program will be open to applicants who meet the following criteria:

- 1) Bachelor-level degree in an acceptable discipline from an academic institution approved by the University of Windsor;
- 2) The equivalent of a B- average in undergraduate studies;
- 3) Where appropriate a TOEFL score of at least 560 (or proof of equivalent English language proficiency, such as MELAB or CAEL tests);
- 4) A successful interview with a representative from the Odette School of Business.

Program Curriculum Structure

Total courses: 12

As with the regular M.B.A. program, all required courses are offered by the Odette School of Business Administration. In this program students will follow a prescribed sequence of courses in cohort fashion, with no electives. In addition, the academic program itself will be preceded by an intensive 8-week program of English language instruction and introductory courses to Canadian culture and business practices.

Program Sequencing

Pre-program: Intensive ESL instruction and orientation to Canadian culture and business practices.

First Term

- [78-611](#). Accounting concepts and techniques
- [78-612](#). Finance in a global perspective
- [78-613](#). Managing employees
- [78-614](#). Marketing

Second Term

Common Core Courses:

- [78-631](#). International Business
- [78-632](#). Quantitative Studies

Manufacturing Field

[78-633](#). Introduction to Business Logistics Management

[78-634](#). Leadership and Organizational Change

Logistics and Supply Chain Management Field

[78-633](#). Introduction to Business Logistics Management

[78-635](#). Purchasing and Procurement

International Accounting and Finance Field

[78-636](#). International Financial Reporting

[78-637](#). International Financial Management

Human Resources Management Field

[78-638](#). Human Resources Management

[78-364](#). Leadership and Organizational change

Third Term

Common Core Courses:

[78-651](#). Business Strategy (capstone course)

Manufacturing Field

[78-652](#). Marketing Strategy and Planning

[78-653](#). Manufacturing Strategy

[78-654](#). Manufacturing and Globalization (Stream capstone)

Logistics and Supply Chain Management Field

[78-655](#). Domestic Transportation and International Shipping

[78-656](#). Quantitative Analysis for Logistics and Supply Chain Management

[78-657](#). Supply Chain Management (Stream capstone)

International Accounting and Finance Field

[78-661](#). Consolidated financial statements

[78-662](#). Accounting Systems Control and Auditing

[78-663](#). Corporate Governance (Stream capstone)

Human Resources Management Field

[78-665](#). International Management

[78-666](#). Managing for High Performance

[78-667](#). Current HR Trends (Stream capstone)



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ODETTE SCHOOL OF BUSINESS: COURSE DESCRIPTIONS

Courses below are listed according to the internal administrative units of the Odette School of Business.

All courses listed will not necessarily be offered in a particular term or year.

Special permission to enter courses without the stated prerequisites must be arranged with the Dean and the instructor involved.

FIRST-YEAR M.B.A. COURSES

76-501. Interpersonal Dynamics

Provides students with the behavioural skills to be effective in organizations. Active listening, conflict resolution, running effective meetings, *etc.*, will be taught with a great deal of emphasis on the practice of these skills. The framework for this module will be the team environment, which many successful companies are moving toward. This module will help students prepare for the teamwork which will be required by all the concurrent modules.

76-502. Core Concepts of Accounting I

An introduction to the role and importance of accounting information in the decision-making process and how to use and interpret various types of accounting information found in financial statements and annual reports. Core concepts of financial accounting will be examined, including the determination of income and the recognition, measurement and reporting of assets, liabilities, and owners' equity. The impact of ethical, regulatory and environmental aspects on the interpretation and application of accounting information will be considered.

76-503. Introduction to Financial Management

Concerned with the concepts and principles of financial management of the business enterprise within the global financial environment. After an introduction to domestic and international financial markets and instruments, the module covers the concepts of value, risk, and efficient markets followed by an introduction to capital budgeting, financial analysis and planning, and short-term financial management.

76-504. Quantitative Techniques in Management

Provides students with a basic but solid background in the quantitative techniques used by successful business organizations. This module will focus on the important aspects of probability and statistics as they relate to the effective presentation of data and to decision-making under uncertainty; and on the use of mathematical modelling as it relates to problem-solving within an organization.

76-505. Marketing Management

Introduces appropriate marketing management concepts and techniques that can be applied to private sector business as well as to not-for-profit organizations' marketing and communication activities. Emphasis will be on the marketing mix elements of product, price, place, and promotion.

Faculty

• Biological Sciences:
Programs

• Biological Sciences:
Courses

Odette School of Business:
Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

• Chemistry and Biochemistry:
Programs

• Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

• Communications Studies:
Programs

• Communication Studies:
Courses

Computer Science: Graduate
Faculty

• Computer Science:
Programs

• Computer Science: Courses

Earth Sciences: Graduate
Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

76-506. Managing Employees

Familiarizes students with the knowledge, roles, responsibilities and skills required of today's managers. Three approaches will be examined: systems, process, and behavioural. The contingency view of management as the process of organizing resources to set and accomplish organizational goals will be emphasized.

76-510. Core Concepts of Accounting II

Further examines the use and interpretation of accounting information within the context of business and business decision-making. It will explore some of the ways in which accounting information may be utilized for business planning and to solve common business management problems. Core concepts of financial and managerial accounting such as financial statement analysis, tax considerations, cost-volume-profit analysis, budgeting, cost allocation, job order and process costing will be covered. As with [76-502](#), the impact of ethical, regulatory, and environmental aspects on the interpretation and application of accounting information will be considered. (Prerequisite: [76-502](#).)

76-511. Research Methodology

Provides students with a broad understanding of methodological issues in research with a specific focus on marketing. Students will develop an understanding of research issues and processes from a marketing perspective through classroom lectures as well as a hands-on, practical marketing research project. Both quantitative and qualitative methods of research will be discussed. (Prerequisites: [76-504](#) and [76-505](#).)

76-512. Financial Management

Focus is on the firm's long-term financial decisions. The sources and the mechanics of obtaining long-term financing are covered, together with the discussion of strategic decisions involving capital structure and dividends. The module includes a broader study of financial markets and instruments, including options, with applications in financial management. (Prerequisite: [76-503](#).)

76-513. Human Resources Management

Concerned with the role of human resources activities in facilitating the achievement of organizational effectiveness. Students will gain an understanding of the principles of human resources management and develop some skills they can apply in solving actual people problems at work. Particular attention is given to the roles of labour relations and trade unionism as they pertain to human resources activities. Students will be provided with exposure to both a management and labour perspectives to H.R. issues.

76-514. Management Information Systems

Learn how to envision, design and evaluate computer-based solutions to typical business problems. Emphasis will be on the contemporary and emerging hardware /software tools, the managing of information, and information technology.

CANDIDATE YEAR COURSES

The prerequisite for all candidate year (600-level) courses is candidate-level standing in the M.B.A. program or equivalent preparation.

ACCOUNTING

70-650. Managerial Accounting and Analysis

Examines approaches to generating, analyzing and using accounting information in performing managerial functions such as planning, controlling, performance evaluation and decision making.

70-651. Reporting, Analyzing, and Using Accounting Information

Examines alternative approaches to generating, analyzing and using accounting

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

information. It will emphasize the understanding and the application phases of accounting information by users. Topics include: Accounting entity-concepts of control and significant influence; accounting policy choice; internal control; elements in the consolidated financial statements, such as owners' equity, minority (non-controlling) interest and goodwill; profitability, liquidity and solvency analyses; working capital management; and business valuation.

70-659. Topics in Accounting

A reading and research seminar which deals with major concepts and important current problems in Accounting. The precise topic to be covered in a particular term will vary according to current interest and faculty availability, and will be announced in the previous term.

MANAGEMENT AND LABOUR STUDIES

71-613. Leadership and Organizational Change

Provides an analytical framework to understand organizational transformation through (a) leadership and vision building, (b) strategic human resources planning (c) restructuring and redesigning and (d) organization environment interactions. Students will focus on the practical aspects of diagnosing the need for change and supporting, facilitating, or leading the change process.

71-643. International Management

Focuses on the problems and issues that confront managers in the area of international business. Background materials, cases, and exercises will involve the students in the challenges facing the international manager. A major objective is to develop a sensitivity that will enhance the student's ability to operate in the complex environment of multicultural businesses.

71-646. Business Negotiation and Problem Solving

Highlights the role of effective negotiation for resolving conflict and sharing resources and power in complex organizations. Students will be exposed to various styles of negotiating, problem solving and bargaining strategies as well as communication approaches aimed at enhancing organizational performance.

71-647. Managing Diversity in Workplace

Addresses the dynamics of increasing diversity of the work force and the major challenges faced by organizations and their managers such as maintaining fairness and justice, making effective decisions for performance improvement, allowing flexibility and managing diversity in the global environment. The course also analyzes the legal frameworks in place which value and protect employee and employer rights related to gender, race, age, religion, sexual orientation, ability, and other dimensions of diversity.

71-648. Topics in Management and Labour Studies

A reading and research seminar which deals with major concepts and important current problems in the areas covered by Management and Labour Studies. The precise topic to be covered in a particular term will vary according to current interest and faculty availability, and will be announced in the previous term.

FINANCE

72-670. Investment Analysis and Management

Economic background to security analysis; types of corporate securities for investment; theory and mechanics of investment; general analysis and valuation procedures; valuation of fixed income securities and common stocks; procedures in analysis of government, industrial, financial and public utility securities; and portfolio management.

72-671. Portfolio Management

Objectives of individual and institutional portfolios. Security selection, diversification,

- IMSE: Courses

Mechanical Engineering:
Graduate Faculty

- Mechanical Engineering:
Areas of Specialization

- Mechanical Engineering:
Courses

English: Graduate Faculty

- English: Programs

- English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

- History: Programs

- History: Courses

Faculty of Human Kinetics:
Graduate Faculty

- Kinesiology: Programs

- Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

- Mathematics and Statistics:
Programs

- Mathematics and Statistics:
Courses

marketability, risk and return in portfolio construction. Timing and formula plans, bond portfolio problems, performance measurement, trading problems, tax planning, supervision, quantitative techniques for portfolio management, and regulations.

72-672. Cases in Financial Management

An advanced case course in financial management. Financial concepts and principles of managing a business enterprise are illustrated. Planning for the acquisition and use of funds so as to maximize the value of the business is examined through the use of case analysis.

72-673. Topics in Finance

An in-depth study of topical issues in finance. A reading and research seminar dealing with major concepts and problems in the area of financial management. Precise topics to be covered during a term will vary according to current trends in the literature.

72-674. International Financial Management

A study of the problems facing the international financial manager. Topics include: international markets, spot and forward currency fluctuations, positioning corporate funds, investment decisions, hedging and exposure management.

MANAGEMENT SCIENCE

73-602. Topics in Management Science

A reading and research seminar which deals with major concepts and important current problems in the areas of management science, operations management, or management information systems. The precise topic to be covered in a particular term will vary according to current interest and faculty availability, and will be announced in the previous term.

73-603. Management Science Models

Study of spreadsheet-based practical quantitative decision-making models relevant to major functional areas of business. Topics include linear and non-linear programming models, network models, and simulation models for problems involving uncertainty.

73-604. Operations Management

Study of relevant topics recognized as important factors for successful management of business operations. Topics include: processes and their measurement in manufacturing and services, forecasting, aggregate planning, inventory management, quality control, and supply chain management.

73-606. Strategic Implementation for Technologies Management

Strategic management of technology and innovation in established firms. The overall course objectives are to help students gain competence in (1) understanding the basic framework for the relationships among a business strategy, an information systems strategy and an organizational strategy; (2) developing an awareness of the range, scope and complexity of the issues and problems related to the strategic management of technology and innovation; (3) developing a conceptual framework for assessing and auditing the innovative capabilities of a business organization and (4) developing insight concerning the skills necessary to be effective in managing the innovation process. The course will use SAP, an enterprise resource planning software, as a simulation tool to explore the strategic use of information systems in a large organization.

MARKETING

74-631. Consumer Behaviour

A study of analytical concepts and research techniques derived from the behavioural sciences or developed from consumer behaviour research. A significant objective of the course is the application of such concepts and techniques to the solution of marketing problems.

Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

74-632. Marketing Research

An advanced course assuming familiarity with the conceptual research process, characteristics of basic data collection modes and measurement, hypothesis testing, regression analysis, and analysis of variance. Utilizing a discussion format, the course offers a review of current marketing research literature concerning: 1) examination of properties of familiar data collection and analysis techniques; 2) examples of their application; and 3) introduction to more advanced data collection and analysis methods.

74635. International Marketing Strategy

A study of the problems faced by Canadian businesses when exploring and distributing to foreign markets. A significant objective of the course is to explore, through research findings, strategies that would improve Canada's international marketing efforts.

74-638. Topics in Marketing

This course is of varying content dealing with topical issues in marketing. The course might focus on a specific functional area in marketing or a particular environment for the application of marketing concepts. Administration of the course varies as appropriate with its content and might take on a literature survey, research project, experiential, or other format.

74639. Marketing Strategy and Planning

An analysis of the formation of marketing strategies and plans. Topics covered will include business definitions, developing marketing objectives, selecting market targets, developing all aspects of the marketing mix, and evaluating marketing performance. Marketing decision models, portfolio techniques, generic strategies, PIMS, and related topics will also be covered.

BUSINESS STRATEGY AND ENTREPRENEURSHIP

75-680. Managing the International Enterprise

This survey course gives students a basic understanding of the international business environment and of the decisions that managers make in international firms. The course begins by considering the historical development of international business and the current global focus of international firms. It then examines the international global environment, including theories of trade and foreign direct investment, balance of payments and international institutions and models for evaluating the environment in order to select the best international strategy or mode of entry for a particular location. Finally, the course briefly examines the functional decisions made in international firms- financial, marketing, operational, human resources- and issues associated with international structure and control.

75-682. Manufacturing Strategy

Examines the use of manufacturing and operations as weapons in the firm's competitive arsenal. It addresses strategic questions related to the choice of proper process technology, the determination of plant size and location, the extent of vertical integration and the continuous pursuit of quality and productivity.

75-690. Entrepreneurship: New Venture Formation and Management

Aiming at opening up the entrepreneurial option for students, this course examines entrepreneurship as an economic and a business phenomenon with special emphasis on the process of new venture creation. Through a mix of seminars, case studies, and field research, students explore the topics of finding new venture ideas, developing business ideas and business concepts, conducting feasibility studies, developing business plans, preparing deal structures and financing strategies, launching new ventures, and initial entrepreneurial management beyond the start-up phase. Students are expected to undertake a new venture creation project culminating with a detailed business plan.

75-692. Topics in Strategic Management

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This is an investigation and discussion of contemporary issues in strategic management and entrepreneurship. The topics to be covered will vary from term to term according to current developments in the business world.

75-698. Strategic Management

This is the capstone course of the M.B.A. program. It integrates the knowledge gained in prior courses and focuses it on the functions of top management of an organization. Discussion of concepts and current practice are combined with case studies of strategic leadership and strategy formulation and implementation in a domestic and international environment. (Prerequisites: candidate-year standing and all other required courses.)

GENERAL M.B.A COURSES

76-660. Management Skills Development

This course is designed to provide students with the management skills required for providing feedback, dealing with problem employees, coaching, and problem-solving. It is a practical course with ample opportunity for students to practice the skills in different settings and receive feedback on their performance. (Required for, and open only to, Fast Track students)

76-661. Directed Study

Under faculty supervision, students undertake an in-depth, individualized program of study to pursue a topic of relevance to business and to develop, apply, and integrate the knowledge acquired in the program.

76-701. M.B.A. Co-op Work Term I

76-702. M.B.A. Co-op Work Term II

76-711. Fast-Track M.B.A Co-op Work Term

76-796. Major Paper (weight: 2 courses)

76-797. Thesis (weight: 4 courses)

COURSES IN THE M.B.A FOR MANAGERS AND PROFESSIONALS

77-521. Core Concepts of Accounting I

An introduction to the role and importance of accounting information in the decision-making process and how to use and interpret various types of accounting information found in financial statements and annual reports. Core concepts of financial accounting will be examined, including the determination of income and the recognition, measurement and reporting of assets, liabilities, and owners' equity. The impact of ethical, regulatory and environmental aspects on the interpretation and application of accounting information will be considered.

77-522. Introduction to Financial Management

Concerned with the concepts and principles of financial management of the business enterprise within the global financial environment. After an introduction to domestic and international financial markets and instruments, the module covers the concepts of value, risk, and efficient markets followed by an introduction to capital budgeting, financial analysis and planning, and short-term financial management.

77-523. Quantitative Techniques in Management

Provides students with a basic but solid background in the quantitative techniques used by successful business organizations. This module will focus on the important aspects of probability and statistics as they relate to the effective presentation of data and to decision making under uncertainty; and on the use of mathematical modelling as it

relates to problem solving within an organization.

76-524. Managing People in Organizations

Familiarizes students with the knowledge, roles, responsibilities and skills required of today's managers. Three approaches will be examined: systems, process, and behavioural. The contingency view of management as the process of organizing resources to set and accomplish organizational goals will be emphasized.

77-525. Business Research Methods

Provides students with a broad understanding of methodological issues in research. Students will develop an understanding of research issues and processes through classroom lectures as well as a hands-on practical research project. Statistical analysis and both quantitative and qualitative methods of research will be discussed.

77-531. Core Concepts of Accounting II

Further examines the use and interpretation of accounting information within the context of business and business decision-making. It will explore some of the ways in which accounting information may be utilized for business planning and to solve common business management problems. Core concepts of financial and managerial accounting such as financial statement analysis, tax considerations, cost-volume-profit analysis, budgeting, cost allocation, job order and process costing will be covered. The impact of ethical, regulatory, and environmental aspects on the interpretation and application of accounting information will be considered.

77-532. Financial Management

Focus is on the firm's long-term financial decisions. The sources and the mechanics of obtaining long-term financing are covered, together with the discussion of strategic decisions involving capital structure and dividends. The module includes a broader study of financial markets and instruments, including options, with applications in financial management.

77-533. Management Information Systems

Learn how to envision, design and evaluate computer-based solutions to typical business problems. Emphasis will be on the contemporary and emerging hardware/software tools, the managing of information, and information technology.

77-534. Managing Human Resources

Concerned with the role of human resources activities in facilitating the achievement of organizational effectiveness. Students will gain an understanding of the principles of human resources management and develop some skills they can apply in solving actual people problems at work. Particular attention is given to the roles of labour relations and trade unionism as they pertain to human resources activities. Students will be provided with exposure to both management and labour perspectives to H.R. issues.

77-536. Marketing Management

Introduces appropriate marketing management concepts and techniques that can be applied to private sector business as well as to not-for-profit organizations' marketing and communication activities. Emphasis will be on the marketing mix elements of product, price, place, and promotion.

77-620. Reporting, Analyzing, and Using Accounting Information

Examines alternative approaches to generating, analyzing and using accounting information. It will emphasize the understanding and the application phases of accounting information by users. Topics include: Accounting entity concepts of control and significant influence; accounting policy choice; internal control; elements in the consolidated financial statements, such as owners' equity, minority (non-controlling) interest and goodwill; profitability, liquidity and solvency analyses; working capital management; and business valuation.

77-621. Leadership and Organizational Change

Provides an analytical framework to understand organizational transformation through (a) leadership and vision building, (b) strategic human resources planning (c) restructuring and redesigning and (d) organization environment interactions. Students will focus on the practical aspects of diagnosing the need for change and supporting, facilitating, or leading the change process.

77-622. Maximizing the Value of the Organization

An advanced case course in financial management. Financial concepts and principles of managing a business enterprise are illustrated. Planning for the acquisition and use of funds so as to maximize the value of the firm is examined through the use of case analysis.

77-623. Marketing Strategy and Planning

An analysis of the formation of marketing strategies and plans. Topics covered will include business definitions, developing marketing objectives, selecting market targets, developing all aspects of the marketing mix, and evaluating marketing performance. Marketing decision models, portfolio techniques, generic strategies, PIMS, and related topics will also be covered.

77-624. Managing in the International Arena

Focuses on the problems and issues that confront managers in the area of international business. The course examines the international global environment, including theories of trade and foreign direct investment, balance of payments and international institutions and models for evaluating the environment in order to select the best international strategy or mode of entry for a particular location. A major objective is to develop a sensitivity that will enhance the student's ability to operate in the complex environment of international business.

77-625. Strategic Management

This is the capstone course of the M.B.A. program. It integrates the knowledge gained in prior courses and focuses it on the functions of top management of an organization. Discussion of concepts and current practice are combined with case studies of strategic leadership and strategy formulation and implementation in a domestic and international environment.

77-626. Strategic Implementation for Technologies Management

Strategic management of technology and innovation in established firms. The overall course objectives are to help students gain competence in (1) understanding the basic framework for the relationships among a business strategy, an information systems strategy and an organizational strategy; (2) developing an awareness of the range, scope and complexity of the issues and problems related to the strategic management of technology and innovation; (3) developing a conceptual framework for assessing and auditing the innovative capabilities of a business organization and (4) developing insight concerning the skills necessary to be effective in managing the innovation process.

77-627. Business Negotiation and Problem Solving

Highlights the role of effective negotiation for resolving conflict and sharing resources and power in complex organizations. Students will be exposed to various styles of negotiating, problem solving and bargaining strategies as well as communication approaches aimed at enhancing organizational performance

77-628. Entrepreneurship and Intrapreneurship

Aiming at developing entrepreneurial thinking in students, this course examines entre- and intrapreneurship as an economic and a business phenomenon with special emphasis on the process of new venture creation. Students explore the topics of finding new venture ideas, developing business ideas and business concepts, conducting feasibility studies, developing business plans, preparing deal structures and financing strategies, launching new ventures, initial entrepreneurial management beyond the start-up phase and the successful development of such initiatives within a corporate

environment.

77-629. Current issues in Business

This is an investigation and discussion of contemporary issues and current challenges to businesses. The topics to be covered will vary for each offering according to current developments in the business world and will be announced in the previous term.

COURSES IN THE MASTER OF MANAGEMENT

78-611. Accounting Concepts and Techniques

An examination of the core concepts of financial accounting, which includes the determination of income and the recognition, measurement and reporting of assets, liabilities, and owners' equity. Different methods of the utilization of accounting information for business planning and management problem solving will be explored. Core concepts of financial and managerial accounting such as financial statement analysis, tax considerations, cost-volume-profit analysis, budgeting, cost allocation, job order and process costing will be covered. The impact of ethical, regulatory, and environmental aspects on the interpretation and application of accounting information will be considered.

78-612. Finance in a Global Perspective

A study of concepts and principles of financial management of the business enterprise within the global financial environment. Emphasis will be placed on the contemporary and emerging hardware/software tools, information management, and information technology. Following an introduction of domestic and international financial markets and instruments, the concepts of value, risk, and efficient markets will be covered. Capital budgeting, financial analysis and planning, and short-term financial management will also be introduced. With these concepts in hand, the student will learn how to envision, design, and evaluate computer-based solutions for typical business problems.

78-613. Managing Employees

An analysis of the knowledge, roles, responsibilities, and skills required of today's managers. Three approaches will be examined: systems, process, and behavioural. An emphasis will be placed on the contingency view of management with respect to the process of organizing human resources to set and accomplish organizational goals.

78-614. Marketing

An introduction of marketing management concepts and techniques that can be applied to private sector business as well as to not-for-profit organizations' marketing and communication activities. Emphasis will be placed on the marketing mix elements of product, price, place, and promotion.

78-631. International Business

A survey course providing a discussion of the international business environment and the decisions made by managers in international firms. Historical development of international business and the current global focus of international firms will be considered. The international global environment, including theories of trade and foreign direct investment, balance of payments and international institutions, and models for evaluating the environment in order to select the best international strategy or mode of entry for a particular location will be examined. Finally, the functional decisions made in international firms – financial, marketing, operational, human resources – and issues associated with international structure and control will be briefly examined.

78-632. Quantitative Studies

A focus on the important aspects of probability and statistics as they relate to the effective presentation of data and to decision making under uncertainty, and on the use of mathematical modelling as it relates to problem solving within an organization. A solid background in the quantitative techniques used by successful business

organizations will be provided.

78-633. Introduction to Business Logistics Management

A discussion of major issues relating to distribution activities at a micro and macro level. The development of channel systems and the behavioural and legal aspects of channel relationships will be reviewed. Distribution systems will also be discussed and will include such topics as management transportation, inventory management, warehousing, materials handling, and customer order processing.

78-634. Leadership and Organizational Change

An exploration of an analytical framework to understand organizational transformation through leadership and vision building, strategic human resources planning, restructuring and redesigning, and organization environment interactions. Students will focus on the practical aspects of diagnosing the need for change and supporting, facilitating, or leading the change process.

78-635. Purchasing and Procurement

A discussion of effective purchasing techniques and strategies to lower total costs and increase quality within the organization. The course will focus on developing, implementing, and using purchasing systems and policies that support the acquisition of materials. Quality assurance, sourcing of supplies, and inventory management will be included.

78-636. International Financial Reporting

An exploration of the international environment of financial reporting. Particular emphasis is placed on International Accounting and Financial Reporting Standards. The preparation and presentation of financial statements, including such matters as accounting for tax, foreign currency transactions, and interim financial reporting will be reviewed.

78-637. International Financial Management

A study of the problems encountered by an international financial manager. Topics to be discussed include: international markets, spot and forward currency fluctuations, positioning corporate funds, investment decisions, hedging, and exposure management.

78-638. Human Resources Management

A study of the role of human resources activities in facilitating the achievement of organizational effectiveness. Exposure to both management and labour perspectives with regards to human resources issues will be provided by this course. Particular attention will be placed on the roles of labour relations and trade unionism as they pertain to human resources activities. Students will gain an understanding of the principles of human resources management and develop the skills required to solve people problems in the workplace.

78-651. Business Strategy

This is the capstone course of the Master of Management program. It integrates the knowledge gained in prior courses and focuses this knowledge on the functions of top management in an organization. Discussion of concepts and current practice are combined with case studies of strategic leadership and strategy formulation and implementation in a domestic and international environment.

78-652. Marketing Strategy and Planning

An analysis of the formation of marketing strategies and marketing plans. Topics to be covered will include business definitions, developing marketing objectives, selecting market targets, developing all aspects of the marketing mix, and evaluating marketing performance. Marketing decision models, portfolio techniques, generic strategies, PIMS, and related topics will also be covered.

78-653. Manufacturing Strategy

An analysis of the use of manufacturing and operations as weapons in the firm's competitive arsenal. Strategic questions related to the choice of proper process technology, the determination of plant size and location, the extent of vertical integration, and the continuous pursuit of quality and productivity will be addressed.

78-654. Manufacturing Globalization (*Manufacturing Management stream capstone*)

The impact of international trade and of global technology, production, marketing, and social changes on the past development and future prospects of the manufacturing sector will be examined in this special seminar course.

78-655. Domestic Transportation and International Shipping

A study of the regulatory, economic, and management aspects of transportation. The needs and interests of the carriers, governments, and the shipping industry will also be studied. An evaluation of carrier alternatives for both passengers and the cargo in terms of their relative advantages and disadvantages will be discussed.

78-656. Quantitative Analysis for Logistics and Supply Chain Management

An introduction to the use of quantitative approaches in decision-making. Linear programming (model formulation and applications, computer solution, sensitivity analysis, and interpretation), transportation models, project management, PERT/CPM, and inventory control will be among the topics discussed.

78-657. Supply Chain Management (*Logistics and Supply Chain Management stream capstone*)

A special seminar course designed as a capstone for the Logistics and Supply Chain Management stream. An integrative perspective of supply chain strategy, supply chain finance, supply chain information systems, product design, relationship building and ERP will be provided.

78-661. Consolidated Financial Statements

An in-depth review of such matters as definitions of subsidiaries, associates, and joint ventures; equity accounting; exclusions from consolidations; and the preparation, presentation, and analysis of consolidated balance sheets and income statements.

78-662. Accounting Systems Control and Auditing

An exploration, from an international perspective, of accounting systems control and auditing. The framework and regulation of controls and audits, planning and risk, internal controls, audit evidence, group audits and reporting will be covered.

78-663. Corporate Governance (*International Accounting and Finance stream capstone*)

An analysis of matters of corporate governance and managerial responsibility to the organization's stakeholders with special reference to the regulatory framework, business ethics, and the consequences of failures in governance.

78-665. International Management

Focus is placed on the problems and issues that confront managers in the area of international business. A major objective will be to develop a sensitivity that will enhance the student's ability to operate in the complex environment of multi-cultural business. Background materials, cases, and exercises will involve the students in the challenges facing the international manager.

78-666. Managing for High Performance

An examination of the preparation needed to manage the unexpected in a time of organizational turbulence and change. Primary focus will be placed on the organization's approaches required to develop their staff and their structures so they can meet challenges with flexibility rather than rigidity.

78-667. Current HR Trends (*Human Resources Management stream capstone*)

A reading and research seminar that examines major concepts and important current problems in international Human Resources Management. Issues such as executive and management compensation, implementation of international labour standards in developing societies, development of an effective workforce, and dealing with outsourcing of corporate activities will be covered.



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CHEMISTRY AND BIOCHEMISTRY

GRADUATE FACULTY

Professors Emeriti

Drake, John E.; B.Sc., Ph.D., D.Sc. (South-ampton), F.C.I.C.-1969.

McGarvey, Bruce R.; B.A. (Carleton Col-lege), M.A., Ph.D. (Illinois), F.C.I.C.-1972.

University Professors

Stephan, Douglas W.; B.Sc. (McMaster), Ph.D. (Western Ontario)-1982.

Aroca, Ricardo; B.Sc. (Chile), Ph.D. (Moscow State), D.Sc. (Leningrad)-1985.

Loeb, Stephen J.; B.Sc., Ph.D. (Western Ontario), F.C.I.C.-1990.

Professors

Antonelli, David M.; B.Sc., Ph.D. (Alberta)-1997.

Taylor, Keith E.; B.Sc., Ph.D. (Toronto)-1976.

Mutus, Bulent; B.Sc., M.Sc. (Waterloo), Ph.D. (Manitoba)-1982.

Associate Professors

Lee, Lana; A.B. (Mount Holyoke), Ph.D. (Alberta)-1986.

Green, James R.; B.Sc. (Windsor), Ph.D. (Waterloo)-1989.

Schurko, Robert W.; B.Sc., M.Sc. (Mani-toba), Ph.D. (Dalhousie)-2000.
Ananvoranich, Sirinart; B.Sc., M.Sc. (Chu-lalongkorn), Ph.D. (Concordia)-2000.

Pandey, Siyaram; B.Sc., M.Sc. (Banaras), Ph.D. (Jawaharlal Nehru)-2000.

Carmichael, Tricia B., B.Sc., Ph.D (Windsor) -2005

Assistant Professors

Gauld, James W.; B.Sc. (Queensland), B.Sc. (Hon) (Northern Territory), Ph.D. (Australian National)-2001.

Eichhorn, S. Holger; Dipl.Chem., Ph.D. (Bremen)-2001.

Macdonald, Charles L.B.; B.Sc., Ph.D. (Dalhousie)-2001.

Wang, Jichang; B.Sc. (Tsinghua), Ph.D. (Copenhagen)-2002.

Faculty

• Biological Sciences:
Programs

Johnson, Samuel; B.Sc. (McMaster), Ph.D. (British Columbia) - 2002.

Vacratsis, Panayiotis O.; B.Sc. (Eastern Michigan), Ph.D. (Michigan State)-2003.

• Biological Sciences:
Courses

Thadani, Avinash N., B.Sc. (Toronto-Mississauga), Ph.D. (Toronto)-2004.

Adjunct Professors

Odette School of Business:
Graduate Faculty

Adeli, Khosrow; B.Sc. (Tehran), M.Sc., Ph.D. (Ottawa), Dipl. Clin. Chem. (Toronto)-1988.

• Business: Programs

Nazri, Gholam-Abbas; B.S., M.S. (Tehran), Ph.D. (Case Western Reserve); Scientist, General Motors Research, Warren-1991.

• Business: Courses

Artiss, Joseph D.; B.Sc., Ph.D. (Windsor)-1994.

Chemistry and Biochemistry:
Graduate Faculty

Hutnik, Cindy; B.Sc. (Windsor), Ph.D., M.D. (Ottawa), F.R.C.S.C.-1999.
Macri, Joseph; B.A., B.Sc., Ph.D., Dipl.Clin.Chem. (Windsor)-2001.

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CHEMISTRY AND BIOCHEMISTRY: PROGRAMS OF STUDY

Chemistry and Biochemistry (MSc)
Chemistry and Biochemistry (PhD)

Facilities are provided for students wishing to proceed to the degrees of Master of Science and Doctor of Philosophy. Students may enrol in graduate studies in Chemistry and Biochemistry. Additional requirements may be found in the Chemistry and Biochemistry Graduate Handbook.

THE DOCTOR OF PHILOSOPHY DEGREE

In addition to the general requirements outlined in 1.5.2, the following requirements must be met by all students proceeding to the Ph.D. degree:

1) *Course Work*: Candidates must complete successfully at least six courses, including [59-710](#) (or three courses if the candidate enters the program with an MSc degree) chosen from the available graduate offerings in the student's field or from related and cognate courses, with the approval of the Program Committee. The student may be required to take additional courses, as stipulated by the student's Doctoral committee.

2) *Seminars*: In addition to the above course work, students must attend the regular departmental Seminar ([59-795](#)) throughout their Ph.D. studies and present at least one seminar on their research as a fulfilment of this requirement.

3) *Dissertation*: The principal requirement for the Ph.D. degree is the presentation of a dissertation which embodies the results of an original investigation ([59-798](#)). For general requirements of the dissertation, see 1.5.3.

A student who fails to achieve satisfactory performance in all aspects of the program (e.g., course work, seminars, and dissertation work) may be required to withdraw.

4) *Doctoral Committee*: The Ph.D. committee is chosen in the manner described in 1.5.2. This committee will meet with the student annually to review his or her progress. As part of this review the student will present a short seminar on his or her research progress.

5)

(a) *Transfer to the Ph.D. program*: M.Sc. students with a minimum of an A- average in a minimum of two courses taken as a graduate student may transfer directly to the Ph.D. program following a meeting with the Graduate Advisory Committee (with participation of the Outside Reader optional) at which approval to transfer is recommended. Such transfers will normally take place between the 12th month to the 24th month after admission to the M.Sc. II program.

(b) *Comprehensive Examination*: Students in the Ph.D. program will be required to complete an oral comprehensive examination within the first twelve months following

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admission into the Ph.D. program. The examination will take the form of a ten to twenty minute presentation of the student's research work to date, followed by a question and answer session in which the student's depth of knowledge of the field of research and the underlying chemical and/or biochemical principles will be examined. The student will be assessed by a committee of three members comprised of the research advisor and two other faculty members from Chemistry and Biochemistry, with additional members optional. As a guide to the student, the committee may provide some directed readings prior to the examination. The student will be expected to understand the subject matter and background of these topics. A grade of Pass or Fail will be given. In the event of a failing grade, the student may be allowed a second examination within one month, or a specific assignment for subsequent evaluation at the discretion of the examining committee. It may be possible that the student will not be allowed to repeat the examination.

(c) *Final Examination:* Each candidate will take a final oral examination in defense of the dissertation on the recommendation of the doctoral committee. An external examiner, chosen for acknowledged scholarship in the appropriate field of chemistry or biochemistry, will normally be present during the oral examination. The external examiner will be selected by the doctoral committee, subject to the approval of the Dean of Graduate Studies and Research. The examination will be public and will involve a short seminar presentation by the candidate. The examination will be chaired by the Dean of Graduate Studies and Research or delegate.

THE MASTER OF SCIENCE DEGREE

In addition to the general requirements and stipulations outlined in 1.6.2 for the Master's degree, the following requirements must be met by students proceeding to the M.Sc. degree.

1) *Course Work:* Candidates must complete successfully at least three courses chosen from the available graduate offerings in the student's field or from related and cognate courses, with the approval of the Program Committee. The student may be required to take additional courses, as stipulated by the student's Master's committee.

2) *Seminars:* In addition to the above course work, students must attend the regular departmental Seminar (59-795) throughout their M.Sc. studies as a fulfilment of this requirement.

3) *Thesis:* A student must undertake original research and embody the results in a thesis (59-797). The student will then be examined by a committee.

A student who fails to achieve satisfactory performance in all aspects of the program (e.g., course work, seminars, thesis work or major critique) may be required to withdraw.

4) *Master's Committee and Final Examinations:* The Master's committee is chosen in the manner described in 1.6.2. The final examination will take the form of an open seminar in the presence of the Master's committee (see 1.6.3). The examination will be open to the public.

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All of the courses listed will not necessarily be offered in any one year. Topics courses may be taken several times provided the course content is different. Where prerequisites are not stated, consent of the instructor is required.

59-521. Special Topics in Analytical Chemistry

(Prerequisite: [59-321](#).) (2 lecture hours a week.)

59-531. Special Topics In Organic Chemistry

Topics may include polymer chemistry, natural product chemistry, physical organic chemistry, or design and execution of organic syntheses. (Prerequisite: [59-331](#) or consent of instructor.) (2 lecture hours a week.)

59-535. Advanced Organic Chemistry

Physical organic chemistry. Includes molecular orbital theory, stereochemistry, thermodynamics, and reaction mechanisms. (Prerequisite: consent of instructor.) (2 lecture hours a week.)

59-541. Statistical Thermodynamics

A detailed picture of the current status of advanced experimental and theoretical research in modern reaction dynamics. Subjects to be discussed include transition state spectroscopy, coincidence imaging techniques, ion imaging applied to the study of chemical dynamics, nonlinear reaction dynamics in both stirred and reaction-diffusion media, theoretical dynamics treatment of chemical reactions. (2 lecture hours a week.)

59-542. Nuclear Magnetic Resonance Spectroscopy

Theory and applications of NMR in chemical problems, including the origin of the NMR phenomenon, Fourier transforms and spectral processing, spectrometer hardware, pulse sequences, NMR interactions, relaxation and chemical exchange, double-resonance experiments and two-dimensional NMR. (2 lecture hours a week.)

59-545. Special Topics in Physical Chemistry

(2 lecture hours a week.)

59-546. Advanced Topics in Spectroscopy

Electronic and vibrational spectroscopy of gases, liquids, and solids. Theory and practice of infrared and Raman spectroscopy. Theory and applications of electron spin resonance spectroscopy. (2 lecture hours a week.)

59-550. Special Topics in Inorganic Chemistry

A variety of subjects in inorganic chemistry are covered at the discretion of the instructor. The subjects covered may include: main group chemistry, transition metal chemistry, organometallic chemistry, inorganic materials, and group theory. (3 lecture hours a week.)

59-552. Topics in Inorganic Chemistry and Organometallic Chemistry

Topics to be arranged by the instructor, based primarily upon new developments in the field as illustrated by the current research interests of the faculty, as well as by a study

Faculty	of the current literature. (2 lecture hours a week.)
• Biological Sciences: Programs	59-553. -ray Crystallography Theoretical and experimental aspects of single crystal X-ray diffraction methods for the determination of molecular structures. (2 lecture hours a week.)
• Biological Sciences: Courses	59-564. Advanced DNA Science An advanced lecture and seminar course dealing with DNA science. The lectures cover the biochemistry of DNA and RNA at the molecular levels, the current research topics and their implications for the future research. The course also contains a seminar component in which a number of selected topics will be discussed and presented by and among participants. (Prerequisites: 59-468 or equivalent, or consent of instructor.) (2 lecture hours a week.)
Odette School of Business: Graduate Faculty	
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Chemistry and Biochemistry: Graduate Faculty	
• Chemistry and Biochemistry: Programs	59-570. Advanced Quantum Chemistry Perturbation and variation theories. Theories of many electron atoms and general theories of chemical bonds in diatomic and polyatomic molecules. (Prerequisite: 59-341 or equivalent.) (3 lecture hours a week.)
• Chemistry and Biochemistry: Courses	59-581. Analytical Toxicology Analysis of drugs and other toxic substances in biological fluids. The metabolism of drugs as well as the symptomology of poisoning of common therapeutic drugs and the more common industrial chemicals will be discussed. (Prerequisites: 59-360 and 59-361 or 59-362 and 59-363 , or consent of instructor.) (2 lecture hours a week.)
Communication Studies: Graduate Faculty	
• Communications Studies: Programs	59-600. Directed Special Studies A special course of studies with content and direction approved by the student's research advisor and supervisory committee. Although there may be no formal lecture requirements, the course will be equivalent to three one-hour lectures a week for one term. The student will be required (a) to produce a critical review which will be assessed by his or her supervisory committee; the presentation and standard of the review must be appropriate for publication in a scientific journal; (b) to spend one term working in an agreed industrial setting; the quality of work will be assessed by the supervisory committee. This work may be related to but not part of the research undertaken in 59-797 or 59-798 . (Prerequisite: approval of the Program Committee.)
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Computer Science: Graduate Faculty	
• Computer Science: Programs	The course cannot be repeated for credit under (a) above. Under normal circumstances, M.Sc. students may take this course only once; Ph.D. students may register under (b) above for two terms of this industrial experience.
• Computer Science: Courses	59-620. Analytical Spectroscopy of Surfaces Surface spectroscopic techniques and their application to the analysis of chemisorbed and physisorbed species and monomolecular layers. (Prerequisite: 59-321 or equivalent.) (2 lecture hours a week.)
Earth Sciences: Graduate Faculty	
• Earth Sciences: Programs	59-630. Synthetic Methods in Organic Chemistry A study of some important organic reactions with emphasis on their practical application in synthesis. (Prerequisites: 59-330 and 59-331 , or consent of instructor.) (2 lecture hours a week.)
• Earth Sciences: Courses	59-631. Advanced Topics in Organic Syntheses The design, execution, and methodology of total syntheses of complex molecules will be discussed. Emphasis will be placed on both retrosynthetic pathways and execution. (Prerequisites: 59-330 and 59-331 , or consent of instructor.) (2 lecture hours a week.)

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59-633. Current Topics in Organic Chemistry

Topics to be arranged by the instructor, based primarily upon new developments in the field as illustrated by the current research interests of the faculty, as well as by a study of the current literature. (Prerequisites: [59-331](#) or consent of instructor.) (2 lecture hours a week.)

59-634. Advanced Topics in Organic Chemistry

Special topics in organic chemistry will be described. Some of these may include natural product chemistry, organometallic chemistry or heterocyclic chemistry. (Prerequisite: consent of instructor.) (2 lecture hours a week.)

59-636. Advanced Topics in Organic Materials Chemistry

Synthetic approaches as well as physical properties of organic materials such as conducting structures, liquid crystals, dyes, and light emitters are covered. An in-depth understanding of structure-property relationships is the main goal.

59-651. Organometallic Chemistry

A detailed study of selected advanced topics in organometallic chemistry. Typical subjects include (at the discretion of the instructors) main group organometallic chemistry; thermochemical methods in organometallic chemistry; catalysis by organometallics; detailed structural studies. (2 or 3 lecture hours a week.)

59-653. Advanced Topics in Organometallic Chemistry

Topics to be arranged by the instructor, based primarily upon new developments in the field as illustrated by the current research interests of the faculty, as well as by a study of the current literature. (2 lecture hours a week.)

59-655. Selected Topics in Inorganic Chemistry

The chemistry and properties of inorganic materials. Typical topics include: methods of synthesis, methods of characterization, and applications of inorganic materials. (2 lecture hours a week.)

59-660. Protein Chemistry I

Protein chemistry; chemical modification, protein folding, post-translational modification, lipoproteins, and glycoproteins. (Prerequisite: [59-365](#) or equivalent.) (2 lecture hours a week.)

59-661. Protein Chemistry II

Biophysical chemistry; advanced kinetic techniques, pre-steady state, perturbation based methods, review of instrumentation, and examples of how these techniques are currently used to solve biochemical problems. (Prerequisite: [59-660](#).) (2 lecture hours a week.)

59-663. Special Topics in Biochemistry

(Prerequisites: [59-360](#) and [59-361](#), or [59-362](#) and [59-363](#), or equivalent.) (2 lecture hours a week.)

59-671. Special Topics in Theoretical Chemistry

Topics to be selected by registrants but will generally be molecular orbital calculations for organic and inorganic chemists. (2 lecture hours a week.)

59-684. Cell Death and Diseases

A detailed biochemical study of physiological (apoptosis) and pathological (necrotic) cell death in mammalian systems. Role of physiological cell death (apoptosis) during development and tissue homeostasis, immune system and cancer. Various inducers of cell death and mechanism of apoptotic cell death. Role of cell death in disease development: viral infections, stroke, and neurodegenerative disorders, oxidative stress, cell death and aging, Therapeutic opportunities: identification of new targets for

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drug development based on the biochemistry of cell death. Developing new therapeutic approaches e.g. combinatorial treatment for systemic diseases, new vaccine approaches and gene therapy. (2 lecture hours per week.)

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59-686. Advanced Bioanalytical Topics

(Prerequisite: [59-360](#) or [59-362](#), or equivalent.) (2 lecture hours a week.)

59-710. The Research Proposal

This course focuses on the development and presentation of a research proposal, as well as the cultivation of a wide base of knowledge of the chemical and biochemical literature. Techniques of research proposal composition, with particular reference to subject area, budgetary considerations, and written and oral presentation techniques will be discussed. The student will be required to develop and defend his or her own research proposal in chemistry and/or biochemistry. The subject of this proposal must not be from the research work undertaken for the Ph.D. thesis. A written proposal will be submitted to the student's advisory committee and will be followed by an oral presentation and defense of the proposal. The advisory committee will evaluate the originality, the significance, the clarity of the written and oral presentation, and the student's knowledge of the area in the defense. (Prerequisite: registration in the Ph.D. program. The oral presentation and proposal defense will take place during the term of registration.)

59-795. Seminar

59-797. Master's Thesis

59-798. Doctoral Dissertation

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Professors

Winter, James P.; B.J., M.J. (Carleton), Ph.D. (Syracuse)-1981.

Wittebols, James H.; B.A. (Central Michigan), M.A., Ph.D. (Washington State)-2004.

Associate Professors

Hildebrandt, Kai; M.A. (Hamburg), M.A., Ph.D. (Michigan)-1985.

Virdi, Jyotika; B.A. (St. Stephen), M.A. Social Work (Delhi), M.A. (Cornell), Ph.D. (Oregon)-1998.

Scatamburlo-D'Annibale, Valerie L.; B.A., M.A. (Windsor), Ph.D. (York)-2000.

Assistant Professors

Talreja, Sanjay; B.Comm., B.Law (Bombay), M.F.A. (Ohio)-2002.

Bae, Min; B.F.A. (Kyung Pook National Univ.), Dip.Creation of Cinema (Ecole Supérieure d'Etudes Cinématographiques), M.F.A. (Concordia)-2003.

Hartley, Heather; B.S. (Allegheny College, U.S.A.), M.F.A. (Ohio) -2005

Adjunct Assistant Professor

Bryant, Susan E.; B.A., M.E.S. (York), Ph.D. (Simon Fraser)-2003.

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Applicants should submit a portfolio consisting of : (i) a completed application form; (ii) a personal profile in accordance with the format prescribed by the Program; (iii) a C.V.; (iv) an official transcript of grades attained in undergraduate courses; (v) two letters of reference; and (vi) a sample of writing from undergraduate courses and/or a media production or multimedia portfolio. Normally, successful applicants will have an Honours B.A. in Communication or a cognate discipline; however, students lacking this formal requirement but having equivalent qualifications (for example, significant experience with a social justice agency or having engaged for a significant time in social justice related activities) are also encouraged to apply. Students lacking formal admission requirements may be required to enroll in a make-up year.

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40-500. Pro-Seminar

Development of intellectual skills and exploration of procedures and requirements relevant to graduate study and intellectual life. Other topics will include: communication ethics; introduction to themes of social justice and the common good; research methods and thesis preparation. Research studies will be introduced and students will develop and present proposals for major papers and theses.

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40-501. Critical Theories of Communication

A review of critical theories of communication in the context of social justice themes. Key topic areas include theories of commodification, ideology, cultural production and representation, art and politics, communication and democracy, information, and globalization.

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40-512. Communication and Social Movements

Examines the use of traditional and non-traditional forms of communication that have been used within, and by, a variety of social movements and social formations. The course draws upon a combination of new social movement theory and critical media and cultural studies. Areas of focus will include the following: an assessment of (i) the contribution of new communication technologies to social activism and social movements; (ii) the representations of social movements in the context of political/economic/social change; (iii) the diversity and importance of alternative media as a central component of movements for social justice.

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40-513. History of Communication Thought and Technology

Examines the evolution of media technology from perspectives of dependency theory, political economy, and critical cultural studies. Communication thought from the Greeks to the present, with emphasis on Canadian and U.S. Communication thought and international communication from the perspective of social justice and the common good will be analyzed.

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40-514. Political Economy of Communication

Study of social relations influencing the production, distribution and consumption of communication resources. Case studies and histories of media institutions will be examined from the perspective of political economy with comparisons to other approaches, such as neoclassical approaches. Place of communication in world economies and cultures and current issues in the political economy of communication will be examined.

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40-515. Media Representation and Reception

A broad range of media modes and texts, such as documentary, experimental, music-video, feature, television, and the emerging digital formats, will be examined in terms of their aesthetics, poetics, history, and cultural politics. Studies in audience reception through both statistical market-survey methods and qualitative ethnographic methods of research will be presented for comparison and critical reflection.

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40-516. Seminar, Media Praxis

An exploration of the interplay of aesthetic, sociocultural and political implications of media. [NOTE: one medium or a combination of media, e.g., film, television, etc. may be selected for study by the instructor]. A substantial aspect of the course will involve

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Faculty	designing, writing and producing a media project that examines and promotes social justice issues. Previous and significant experience in media production is a prerequisite.
• Biological Sciences: Programs	
• Biological Sciences: Courses	40-520. Directed Study Normally reserved for students not writing a thesis. With approval of the graduate program director, a student may undertake to write an original paper on a specialized topic which will enhance his or her program of study. The course will involve directed supervision of readings and informal discussion with the student's course supervisor.
Odette School of Business: Graduate Faculty	40-590. Selected Topics Selected advanced topics in Communication Studies based on special faculty interests and opportunities afforded by the availability of visiting professors. Special topics courses are subject to Graduate Committee approval. (May be repeated for credit provided that the topics differ.) (3 lecture hours a week.)
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[Biological Sciences: Graduate](#)

COMPUTER SCIENCE

GRADUATE FACULTY

Professors

Kent, Robert D.; B.Sc. (Hons.) (British Columbia), M.Sc., Ph.D. (Windsor)-1982.

Bandyopadhyay, Subir; B.Sc., B. Tech., M. Tech. (Calcutta), M. Math. (Waterloo), Ph.D. (Calcutta)-1984.

Frost, Richard A.; B.Sc. (Hons.) (London), M.Sc. (Aberdeen), Ph.D. (Strathclyde)-1987.

Mukhopadhyay, Asish; B.Sc., M.Sc. (Calcutta), Ph.D. (Bangalore)-1999.

Goodwin, Scott; B.Math (Hons.), M.Math (Waterloo), Ph.D. (Alberta)-2001.

Associate Professors

Tsin, Yung H.; B.Sc. (Nanyang), M.Sc. (Calgary), Ph.D. (Alberta)-1985.

Morrissey, Joan; B.Sc., Ph.D. (Dublin)-1989.

Jaekel, Arunita; B.Engg. (Calcutta), M.A.Sc., Ph.D. (Windsor)-1995.

Ezeife, Christie I.; B.Sc. (Hons.) (Ife), M.Sc. (SFU), Ph.D. (Manitoba)-1996.

Chen, Xiao J.; B.C.S. (Beijing), Ph.D. (Pisa)-1997.

Ahmad, Imran; B.Sc., M.Sc. (Karachi), M.Sc. (Central Michigan), Ph.D. (Wayne State)-1998.

Boufama, Boubakeur; Engg. (Constantine), M.Sc. (France), Ph.D. (Grenoble)-1999.

Aggarwal, Akshai; B.Sc. (Punjab), M.E., Ph.D. (Baroda)-2000.

Sodan, Angela C.; B.Sc., M.Sc., Ph.D. (Berlin)-2000.

Yuan, Xiaobu; B.Sc. (China), M.Sc. (Sinica), Ph.D. (Alberta)-2001.

Ngom, Alioune; B.Sc. (Quebec), M.Sc., Ph.D. (Ottawa)-2000.

Tawfik, Ahmed; B.Sc. (Cairo), M.Sc. (Nebraska), Ph.D. (Saskatchewan)-2000.

Lu, Jianguo; B.Sc., M.Sc., Ph.D. (Nanjing)-2002.

Gras, Robin; B.Sc., M.Sc., Ph.D. (Rennes)-2006.

Assistant Professors

Faculty

• Biological Sciences: Programs

• Biological Sciences: Courses

El-Marakby, Randa; B.Sc. (American University, Cairo), M.Sc. (North Texas), Ph.D. (Lancaster)-2000.

Wu, Dan; B.Sc. (Wuhan), M.Sc. (Beijing), Ph.D. (Regina)-2003.

Kobti, Ziad; B.Sc., M.Sc. (Windsor), Ph.D. (Wayne State)-2005.

Adjunct Professors

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Kabanza, Froduald; Lic. B.Bc. (Liege), Ph.D. (Belgium)-2002.

Wang, Shengrui; B.Math (Hebei), M.Appl.Math (J. Fournier), Ph.D. (INPG)-2002.

Wong, S.K. Michael; B.Sc. (Hong Kong), M.A., Ph.D. (Toronto)-2004.

Cross-Appointments

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Aneja, Yash Paul; M.Sc., B.Sc. (Indian Statistical Inst.), Ph.D. (Johns Hopkins)-1983.

Ali, Adnan; B.Sc. (Punjab), M.Sc. (Quaid-I-Azam), M.Sc., Ph.D. (Waterloo)-2001.

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

- [IMSE: Courses](#)

[Mechanical Engineering:
Graduate Faculty](#)

- [Mechanical Engineering:
Areas of Specialization](#)
- [Mechanical Engineering:
Courses](#)

[English: Graduate Faculty](#)

- [English: Programs](#)
- [English: Courses](#)

[Environmental Science
\(GLIER\): Graduate Faculty](#)

[ES: Programs](#)

[ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)
- [History: Courses](#)

[Faculty of Human Kinetics:
Graduate Faculty](#)

- [Kinesiology: Programs](#)
- [Kinesiology: Courses](#)

[Mathematics and Statistics:
Graduate Faculty](#)

- [Mathematics and Statistics:
Programs](#)
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

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COMPUTER SCIENCE: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
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THE DOCTOR OF PHILOSOPHY DEGREE

[Statistics Canada Disclaimer](#)

The general regulations for the Degree of the Doctor of Philosophy (Ph.D.) at the University of Windsor, as set out in Section 1.5 of the Calendar of the Faculty of Graduate Studies and Research, will apply together with the more specific requirements for the degree of Ph.D. in Computer Science given in the following section. For admission, continuation in good standing, and graduation, students must satisfy both the general university regulations and the specific regulations for Computer Science.

[Important Dates: 2007-08](#)

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Admission Requirements

In order to be considered for admission to the doctoral program in Computer Science, applicants must have completed a thesis-based Master's degree in Computer Science, or, have completed a course-based Master's degree in Computer Science, and have demonstrated to the Admissions Committee, the ability to conduct independent research through the completion of research-oriented project work or appropriate research experience in industry or academia.

[Programs Offered - Overview](#)

Outline of Degree Requirements

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All Ph.D. students must fulfill the following graduate academic requirements:

- (a) A qualifying examination within four months after entering the program.
- (b) No less than two and usually no more than four graduate courses.
- (c) A comprehensive examination within two years after entering the program.
- (d) A research proposal within two years of entering the program.
- (e) Submission of an annual progress report.
- (f) Presentation of three seminars, including the research proposal.
- (g) A final examination consisting of a Ph.D. dissertation defense ([60-798](#)).

[The Degree of Doctor of
Philosophy](#)

Qualifying Examination

[The Master's Degree](#)

The qualifying examination must be taken by all students entering the doctoral program.

[Research Institutes](#)

The qualifying examination is intended to ensure that the student has a mastery of the fundamentals in Computer Science in order to undertake research. This is a breadth requirement in that it does not require the student to be able to undertake research in each of the fundamental areas. Rather, the student must demonstrate knowledge, in each of the fundamental areas, at a level that would be expected of a graduate from a four-year honours Computer Science university-degree program.

[General Courses, FGSR](#)

The student must obtain at least an overall grade of B in the tests and/or course works done for the qualifying examination.

[Biological Sciences: Graduate](#)

Faculty

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- [Biological Sciences: Courses](#)

Odette School of Business: Graduate Faculty

- [Business: Programs](#)
- [Business: Courses](#)

Chemistry and Biochemistry: Graduate Faculty

- [Chemistry and Biochemistry: Programs](#)
- [Chemistry and Biochemistry: Courses](#)

Communication Studies: Graduate Faculty

- [Communications Studies: Programs](#)
- [Communication Studies: Courses](#)

Computer Science: Graduate Faculty

- [Computer Science: Programs](#)
- [Computer Science: Courses](#)

Earth Sciences: Graduate Faculty

- [Earth Sciences: Programs](#)
- [Earth Sciences: Courses](#)

Graduate Courses

Each student must complete no less than two and usually no more than four graduate Computer Science courses, not including those taken for credit in a Master's degree, and not including seminar or thesis courses. Graduate course selection will be determined by the student's Doctoral Committee. Graduate credit will be given for a grade of B- or higher in a graduate course.

Comprehensive Examination

The comprehensive examination is one in which the student is asked to demonstrate a reasonable mastery of the field of specialization; it is designed to test the student's command of knowledge and ability to integrate that knowledge, after completion of all or most of the graduate course work. Normally, this examination is completed during the second year of graduate study and is a prerequisite to admission to candidacy.

Admission to Candidacy

A student is admitted to candidacy when the student has passed the qualifying examination, has completed all of the required graduate courses, and has passed the comprehensive examination.

A detailed description of the regulation for the doctoral program can be obtained from the graduate secretary of the School of Computer Science.

THE MASTER OF SCIENCE DEGREE

Admission Requirements

Graduates of the University of Windsor or of other recognized colleges or universities may be admitted to programs leading to the Master's degree. A student with an honours Bachelor's degree or equivalent with adequate specialization in Computer Science and with at least B standing in the major subject may be admitted to a minimum one-year Master's program (II Master's Candidate). A student with an honours Bachelor's degree in a related subject and with at least B standing in the major subject may be admitted to a minimum two-year Master's program (I Master's Qualifying followed by II Master's Candidate) or to a minimum two-year II Master's Candidate program depending upon prior qualifications.

Students with deficiencies in some areas of Computer Science may be required to make up those deficiencies by registering in undergraduate courses prior to or as part of their graduate program or by following a program of supervised reading.

Program Requirements

- 1) The requirements for the degree of Master of Science will be satisfied by pursuing a program of studies consisting of six approved courses and a thesis. (A thesis is a major research project which must involve substantial innovative work generally culminating in original results.)
- 2) With prior approval of the graduate coordinator, candidates may be permitted to include at most one advanced undergraduate computer science course in their program.
- 3) With prior approval of the graduate coordinator, candidates may be permitted to include graduate courses offered by other departments in their program.
- 4) No student will be allowed to include in his or her program a course which

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

substantially overlaps a course previously taken.

5) All candidates' programs are subject to approval by the Computer Science program graduate committee.

A student who fails to achieve satisfactory performance in all aspects of the program (course work, thesis or major paper) may be required to withdraw.

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

The Master's thesis committee is chosen in the manner described in 1.6.2 of this Graduate Calendar. The final examination will take the form of an open seminar in the presence of the Master's committee. The examination will be open to the public.

Each student must obtain approval of his or her program, in writing, from the graduate coordinator within three weeks of registration. Subsequent changes require written approval from the graduate coordinator.

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

- [IMSE: Courses](#)

[Mechanical Engineering:
Graduate Faculty](#)

- [Mechanical Engineering:
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[English: Graduate Faculty](#)

- [English: Programs](#)
- [English: Courses](#)

[Environmental Science
\(GLIER\): Graduate Faculty](#)

[ES: Programs](#)

[ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)
- [History: Courses](#)

[Faculty of Human Kinetics:
Graduate Faculty](#)

- [Kinesiology: Programs](#)
- [Kinesiology: Courses](#)

[Mathematics and Statistics:
Graduate Faculty](#)

- [Mathematics and Statistics:
Programs](#)
- [Mathematics and Statistics:
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Faculty of Nursing: Graduate Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

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Visual Arts: Graduate Faculty

- Visual Arts: Programs
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COMPUTER SCIENCE: COURSE DESCRIPTIONS

[PROGRAMS OF STUDY
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Not all of the courses listed below will necessarily be offered in any one year. A component of certain courses will be offered in conjunction with an advanced undergraduate course; in such cases the undergraduate course work will comprise one half of the graduate course.

[Statement of Responsibility](#)

All courses are restricted to students enrolled in the Master's II Computer Science program who have all undergraduate qualifying courses and who have approval from the instructor and Computer Science program graduate committee.

[Statistics Canada Disclaimer](#)

[Important Dates: 2007-08](#)

Note: Certain courses listed below require more than one term to complete. Unless such courses are officially graded as "In Progress" (IP), regulations for incomplete grades will apply (see 1.4.3).

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

To remove any suggestion that the word "engineering" in the context of courses in Computer Science may be taken to cover the meaning of "engineering" as used in the context of courses in Professional Engineering, it is hereby acknowledged that Software Engineering is a collection of principles, models, methods, and techniques for the development, maintenance, evolution and reuse of software that meets functional, performance and quality requirements in an economic and competitive manner.

[Programs Offered - Overview](#)

60-510. Literature Review and Survey

The purpose of this course is to prepare students for conducting the specific research on which their thesis will be based. Students are required to complete a thorough literature search on the general area in which they intend to conduct research and to undertake extensive supervised reading. Students must submit a comprehensive survey of relevant research, together with an annotated bibliography and references of important papers, theses, books, and conference proceedings. The bibliography should include names and current addresses of scientists working in the student's chosen area.

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60-511. Advanced Software Engineering

Development and maintenance of software systems that satisfy their specifications. Topics include integrating informal and formal software design methodologies, software reuse, and software reliability.

[The Degree of Doctor of
Philosophy](#)

60-512. Software Engineering for Distributed Systems

This course introduces to the students both formal and informal techniques used in software specification, verification and testing. The concentration is put on advanced methods and techniques in dealing with large-scale distributed concurrent systems. The aim of the course is to provide graduate students the opportunity of obtaining strong background and skills in developing complex software systems for their future work in industry.

[The Master's Degree](#)

[Research Institutes](#)

[General Courses, FGSR](#)

60-513. Topics in Software Engineering

Some advanced selected topics in software engineering will be discussed in this course. Topics include software quality engineering, formal methods in software verification, and reverse engineering of software.

[Biological Sciences: Graduate](#)

60-515. Middleware and Web Engineering

Faculty

• Biological Sciences: Programs

• Biological Sciences: Courses

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

This course introduces software engineering concepts, principles and techniques in middleware and web-based systems. Selected topics include, but are not limited to: architecture design; web modelling in UML; testing techniques in web applications; software monitoring with CORBA interceptors; distributed object systems using CORBA; formal methods in message-oriented middleware.

60-535. Distributed Query Processing

This course will cover topics such as algorithms and techniques for query optimization in distributed databases; methods for evaluating algorithms and experimental procedures. Each student will be required to survey a topic in the area and present a report. Students will also be required to implement algorithms and comparatively evaluate techniques.

60-536. Multimedia Databases

This course focuses on the study of basic and advanced database techniques used to manage multimedia objects in multimedia database systems. Topics covered include: motivation for multimedia databases; fundamental database implementation techniques; characteristics of multimedia applications; multidimensional access structures; image databases; movie databases; further media types such as text and audio; multimedia databases; models and languages; storage techniques; and multimedia presentations.

60-537. Database Management Systems

Current developments in selected aspects of database management. Topics covered may include data models, database languages, database logics, database machines, and transaction management.

60-538. Information Retrieval Systems

Fundamental principles and advanced topics in the design of information retrieval systems. Theoretical as well as practical aspects will be discussed.

60-539. Emerging Non-traditional Database Systems

Course focuses on the study of one or more advanced, new and non-traditional database system(s) like data warehousing and mining, video database systems, mobile database systems, and distributed object-oriented database systems. Topics discussed include system architecture, components, features, implementation, applications and research issues. Both theoretical and practical contributions to further improve the system under study remain part of the course objective.

60-540. Foundations of Programming Languages

Current developments in the theory and practice of programming language design and implementation. Various languages will be considered and may include imperative, applicative, logic, constraint, object-oriented, and equational languages.

60-549. Virtual Reality

This course introduces the fundamental concepts, advanced techniques, and most recent practices of virtual reality research and applications. Topics include: web-based virtual interfaces design, object and behaviour modelling, animation and physical simulation, 3D human-computer interaction, real-time rendering of multi-sensory feedback, and virtual reality tools and applications. (Prerequisite: B.Sc. (Hons., Computer Science) or permission of instructor.)

60-550. Scientific and Data Visualization

Current developments in scientific and data visualization research techniques. Introduction to visualization methods, algorithms, design and current system models. Integrated roles of modeling, simulation and visualization.

60-551. Visual Processing

This course introduces fundamental aspects of visual processing. Topics include:

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

image formatting, image processing, image acquisition, camera geometry, camera calibration, feature detection, 3D reconstruction, camera motion computation, feature matching, feature tracking, object recognition and vision for robotics.

60-552. Computer Graphics

Current developments in computer graphics. Topics covered will include hardware, software, interfaces, graphics standards, data structures, rendering algorithms, and visualization.

60-554. Advanced Algorithms

Methodology for developing efficient algorithms. Advanced data structures. Intractable computational problems and approximation algorithms.

60-555. Parallel Computation

Introduction to fundamental issues in parallel computation. Basic parallel computing platforms. Models of parallel computation such as shared data and message passing. Data parallel and other abstractions. Cost models and debugging. Programming for performance. Scalability. Workload balancing. Meta-computing in grid environments. Libraries and compilers. Parallel algorithms for numeric and non-numeric problems.

60-556. Parallel Runtime Systems

Introduction to fundamental issues in parallel runtime systems. Thread systems and communication libraries. VSM, I/O and checkpointing. Scheduling and load distribution, synchronization, dynamic memory management, representation. Interface to user and computer architecture. Multiple-strategy systems and configuration. (Prerequisite: B.Sc. (Hons., Computer Science) or permission of instructor.)

60-557. Computational Geometry and Its Applications

This focus of this course is on the algorithmic issues in geometry and its various applications. Topics include: basic geometric algorithms pertaining to construction of convex hull, Voronoi diagram, triangulations, and other constructions of a point set; construction of the arrangement of a set of lines and its connection with the Voronoi diagram; applications of fundamental algorithms in areas such as computer graphics, robotics and geographical information processing.

60-558. Computational Molecular Biology

This introductory course discusses the development and use of computer science techniques to help solve problems in molecular biology. The purpose is to present a representative sample of computational problems in molecular biology and some of the efficient algorithms that have been proposed to solve them. Topics include: sequence comparisons, database search, DNA fragments assembly, DNA mapping, phylogenetic trees, genome rearrangements, molecular structure prediction, DNA computing. Student will be required to investigate selected problems/methods in computational biology. (Prerequisite: B.Sc. (Hons., Computer Science) or permission of instructor.)

60-560. Advanced Computer Architecture

Current developments in computer architecture covering advanced concepts in sequential and parallel architectures. Topics include memory hierarchy, homogeneous and heterogeneous architectures, shared-memory (SMP and DSM) and distributed-memory machines (Beowulf cluster to high-end parallel machines), dataflow and multi-threaded architectures, ILP and VLIW, pipelining, and vector machines. Systolic arrays and application/language specific architectures. Networks. Programming models for parallel machines. Programming for performance on different architectures.

60-561. Artificial Neural Networks

This course introduces the fundamentals of Artificial Neural Networks. Standard neural network architectures are discussed along with their associated set of learning algorithms. Application classes of neural networks are also presented. Topics include: supervised and unsupervised learning, associative learning, competitive learning,

- [IMSE: Courses](#)

[Mechanical Engineering:
Graduate Faculty](#)

- [Mechanical Engineering:
Areas of Specialization](#)

- [Mechanical Engineering:
Courses](#)

[English: Graduate Faculty](#)

- [English: Programs](#)

- [English: Courses](#)

[Environmental Science
\(GLIER\): Graduate Faculty](#)

[ES: Programs](#)

[ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)

- [History: Courses](#)

[Faculty of Human Kinetics:
Graduate Faculty](#)

- [Kinesiology: Programs](#)

- [Kinesiology: Courses](#)

[Mathematics and Statistics:
Graduate Faculty](#)

- [Mathematics and Statistics:
Programs](#)

- [Mathematics and Statistics:
Courses](#)

probably approximately correct learning, adaptive learning, pattern recognition, linear separability, gradient-descent and optimization. Students will be required to investigate selected architectural and/or learning models of some neural networks. (Prerequisite: B.Sc. (Hons., Computer Science) or permission of instructor.)

60-562. Computational Grid Systems

Introduction to computational grid system goals; issues in requirements acquisition and design, specification and development; computing, networking and institutional infrastructure development; relationship to cluster and super-computing approaches; mechanisms and approaches to account management; grid adaptation of programming model; information service provision and delivery; measurement and analysis of end-to-end performance of parallel and distributed applications; analysis and monitoring tools; issues related to remote access and transparency; resource scheduling and management; and, security issues in authentication, authorization and data integrity. (Prerequisite: B.Sc. (Hons., Computer Science) or permission of instructor.)

60-564 Security and Privacy on the Internet

This course introduces the issues of security in public distributed networks. Topics include: security planning, policies and procedures, threats and strategies, security services and mechanisms, digital rights; topics in Internet related to security and privacy; secure protocols, DES, AES; public key algorithms; VPN; Internet sniffing and scanning tools; intrusion detection, intrusion analysis and tools; viruses and enterprise anti-virus tools; other applications such as digital cash, code signing and anonymous e-mail.

60-567. Advanced Computer Networks

This course will cover developments in modern communication networks. Topics will include: link-level protocols; internet routing and protocols such as IPv4, IPv6, DHCP and ICMP; subnetting; interdomain routing and CIDR; virtual networks and tunnels; wireless protocols and mobile IP; ATM technology; switching hardware; optical communications; and, network security. This course will cover developments in modern communication networks. Topics will include: link-level protocols; internet routing and protocols such as IPv4, IPv6, DHCP and ICMP; subnetting; interdomain routing and CIDR; virtual networks and tunnels; wireless protocols and mobile IP; ATM technology; switching hardware; optical communications; and, network security.

60-568. Advanced Internet Systems

This course covers the internet design philosophy and its protocols, such as IPv4, IPv6, TCP and RTP/RTCP. Topics include emerging Internet multimedia services, Quality of Service (QoS), scheduling and policing mechanisms, routing, resource reservation, reliable multicast, flow and congestion control, integrated services, differentiated services, and adaptive applications. (Prerequisite: B.Sc. (Hons., Computer Science) or permission of instructor.)

60-569 Semantic Web

The Semantic Web is an extension of the current world wide web in which information is given well-defined, machine-understandable meaning, thus enabling computers and people to work in cooperation. This course introduces both theoretical and practical aspects in semantic web. Topics will include: languages and representation issues in semantic web; cooperative software agents; web service technology; and information integration theory and practice.

60-570. Introduction to Artificial Intelligence

This course covers fundamental concepts in Artificial Intelligence including problem solving, knowledge representation and reasoning, planning, learning and natural language understanding. (Prerequisite: B.Sc. (Hons., Computer Science) or permission of instructor.)

60-572. Topics in Artificial Intelligence

Students will study in depth selected fundamental topics in artificial Intelligence. The focus will be on theories, techniques and algorithms. (Prerequisite: [60-570](#) or

Faculty of Nursing: Graduate Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

permission of the instructor.)

60-573. Natural Language Processing and Understanding

This course covers the basic linguistic, logical and AI approaches to the development of natural language understanding systems. Topics covered include: syntactic/parsing strategies, formal semantics, pragmatics and the resolution of various types of ambiguities. Inference strategies involved in the resolution of ambiguities at the pragmatic level include a detailed discussion of the representation of and reasoning with commonsense knowledge. The course also includes the implementation of natural language interfaces and the application of linguistic approaches to the development of intelligent text retrieval systems. (Prerequisite: [60-570](#) or permission of the instructor.)

60-574. Machine Learning

This course is a general introduction to Machine Learning. Topics include: Concept learning, Decision Tree Learning, Artificial Neural Networks, Bayesian Learning, Computational Learning Theory, Instance-Based Learning, Genetic Algorithms, Learning Sets of Rules, Analytical Learning, and Reinforcement Learning. (Prerequisite: B.Sc. (Hons., Computer Science) or permission of instructor.)

60-575. Knowledge Representation and Reasoning

This course covers advanced topics in knowledge representation and reasoning including Non-monotonic logic, Temporal and spatial representation and reasoning, Probabilistic approaches, Belief and decision networks, and an overview of the applications of these formalisms to diagnosis, navigation and decision making. (Prerequisite: B.Sc. (Hons., Computer Science) or permission of instructor.)

60-576. Advanced Search Methods

This course covers advanced search methods including, for example, gradient-descent family of search methods, hill climbing, simulated annealing, evolutionary search, tabu search, hybrid techniques, adaptive techniques, constraint satisfaction search, forward checking, consistency enforcement and adversarial search (two player games). (Prerequisite: B.Sc. (Hons., Computer Science) or permission of instructor.)

60-579. Topics in Applied Artificial Intelligence

Topics in artificial intelligence focussing on intelligent systems and applications. Topics will be selected from areas such as intelligent agents, intelligent tutoring systems, knowledge acquisition, intelligent scheduling, embedded intelligence, constraints satisfaction techniques, and knowledge discovery. (Prerequisite: [60-570](#) or permission of the instructor.)

60-588. Advanced Programming Languages

Current developments in the design, application, and implementation of pure lazy functional programming languages.

60-590. Directed Special Studies

With approval of the graduate program coordinator, a student may undertake to write an original paper on a specialized topic which would enhance his or her program of study. The course will involve directed supervised reading and informal discussion with the graduate supervisor. The work undertaken in fulfilling the requirements for this course will not be counted directly for credit in the evaluation of [60-797](#) (M.Sc. Thesis).

60-592. Selected Topics

Selected advanced topics in computer science.

60-797. M.Sc. Thesis

Students may not register in [60-797](#) until they have completed [60-510](#).

60-798. Doctoral Dissertation Research

An original research investigation, the results of which will be embodied in a concisely

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written dissertation conforming in style and format to a recognized journal in the field of specification. The dissertation should be of the highest quality possible and suitable for publication. In no case may this course be used for credit toward fulfilling the course requirements in the Ph.D. program.

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EARTH SCIENCES

GRADUATE FACULTY

Professor Emeritus

Symons, David T.A.; B.A.Sc. (Toronto), A.M. (Harvard), Ph.D. (Toronto), P. Eng.-1970.

Professors

Trenhaile, Alan S.; B.Sc., Ph.D. (Wales)-1969.

Simpson, Frank; B.Sc. (Edinburgh), Dr. Nat. Sc. (Jagiellonian U., Krakow), P.Eng., P.Geo.-1974.

Lakhan, V. Chris; B.A. (Guyana), M.A. (Windsor), Ph.D. (Toronto), F.R.G.S. (U.K.), C.E.I., C.E.S. -1984.

Samson, Iain M.; B.Sc., Ph.D. (Strath-clyde)-1986.

Al-Aasm, Ihsan S.; B.Sc., M.Sc. (Baghdad), Ph.D. (Ottawa)-1989.

Fryer, Brian J.; B.Sc. (McMaster), Ph.D. (Massachusetts Inst. Tech.), F.R.S.C.-1993.

Associate Professors

Yang, Jianwen; B.Eng. (Guilin Institute of Geology, China), M.Eng. (Central-South University of Technology, China), M.Sc., Ph.D. (Toronto)-2002.

Assistant Professors

Graniero, Phil A.; B.E.S., M.E.S. (Water-loo), Ph.D. (Toronto)-2000.

Cioppa, Maria T.; B.Sc. (Carleton), M.Sc. (Victoria), Ph.D. (Lehigh)-2001.

Gagnon, Joel; B.Sc., M.Sc. (Windsor), Ph.D. (McGill)-2006

Polat, Ali; B.Sc. (Technical University of Istanbul), M.Sc. (Houston), Ph.D. (Saskatchewan)-2002.

Weisner, Christopher; B.Sc. (Western Ontario), Ph.D. (South Australia)-2005.

Adjunct Professor

Greenough, John D.; B.Sc (Acadia), M.Sc. (Carleton), Ph.D. (Memorial)-1999.

Fowle, David A.; B.Sc. (Western Ontario), M.Sc., Ph.D. (Notre Dame)-2001.

Ames, Doreen E.; B.Sc. (Waterloo), M.Sc., Ph.D. (Carleton)-2005.

Faculty

• Biological Sciences: Programs

Barrie, C. Tucker; B.Sc. (Michigan), M.A. (Texas), Ph.D. (Toronto)-2005.

Coniglio, Mario; B.Sc. (McGill), M.Sc. (Manitoba), Ph.D. (Memorial)-2005.

• Biological Sciences: Courses

Kalin, Margarete M.; B.Sc., M.Sc. (Toronto)-2007.

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

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Computer Science: Graduate Faculty

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Earth Sciences: Graduate Faculty

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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

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Political Science: Graduate
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Psychology: Graduate Faculty

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In addition to the general requirements outlined in 1.5, the following requirements must be met by all students proceeding to the Ph.D. degree.

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The normal requirement for entry into the Ph.D. program shall be an M.Sc. in Earth Sciences or an appropriate degree in a cognate discipline. Students who have enrolled in the M.Sc. program may apply to transfer to the Ph.D. program after one year of registration, and must have achieved a minimum A- average in course work and have a strong recommendation from their thesis committee.

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Students entering the Ph.D. program with an M.Sc. degree will be required to:

- a) take a minimum of four, one-semester courses, including the doctoral research proposal and graduate seminar courses.
- b) Additional courses may be required if the doctoral committee feels that a particular area of the student's background needs to be strengthened.

[Faculty Regulations](#)

The required courses will be chosen in the context of the student's previous education to ensure a sufficient intellectual challenge, commensurate with the Ph.D. degree.

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Students transferring into the Ph.D. program after having completed one year of the M.Sc. degree will be required to take a minimum of six courses in total, including the doctoral research proposal and graduate seminar courses.

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Grading: The minimum passing grade in graduate courses is "B-". Any student whose performance is deemed unsatisfactory in course work or research will be required to withdraw.

[Research Institutes](#)

Doctoral Committee: The doctoral committee shall comprise the advisor(s), two other faculty members from the Department of Earth Sciences and one faculty member from another department at the University of Windsor. Other committee members can be added where appropriate (e.g. from other universities or from industry).

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Research Proposals: Doctoral candidates will be required to prepare research proposals that must be successfully defended in a public forum, prior to continuation in the program. Presentation of the research proposal will normally be at the end of the first calendar year after enrollment.

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Dissertation: The student will be required to submit a dissertation that is a compilation

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Earth Sciences: Graduate Faculty

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of original research carried out by the student, under the supervision of the student's advisor(s) and the doctoral committee. The dissertation may be submitted in a traditional format or as a compilation of published papers and/or manuscripts, linked by introductory and conclusion chapters. In the latter case, the contribution of the student to any jointly authored papers must be clearly stated and justified.

Progress reports: The student will submit annual research progress reports to the doctoral committee. Continuation in the program is dependent on a satisfactory progress report. The Faculty of Graduate Studies and Research also monitors student progress via an annual progress report submitted by the student and supervisor.

Examinations

Comprehensive Examination: The comprehensive examination will normally occur at the end of the first year and will typically be held in conjunction with the defense of the research proposal. However, the two may be held at different times for logistical or other reasons. The comprehensive exam is complementary to the defense of the research proposal, and is designed to assess whether the student's scientific knowledge is appropriate for continuance in the Ph.D. program, and to ensure that the student has the background knowledge that is required for their research. A pass/fail decision will be by a majority vote of the committee. If a student should fail the comprehensive exam, he or she will be allowed to re-sit the exam within a four-month period after the first exam. The student will be required to withdraw from the program should he or she fail the second exam.

Defense: The dissertation will be defended by the student and examined by an examination committee in a public defense. The examination committee will comprise the student's doctoral committee and an external examiner.

THE MASTER OF SCIENCE DEGREE

Program Requirements

1) *Course Requirements:* The candidate for a Master's degree will be required to take [61-580](#) and [61-582](#), plus a minimum of two graduate courses normally from Earth Sciences but may include courses from cognate disciplines with prior approval. Not more than one course may be in Special Topics ([61-590](#)), and not more than two courses may be from the same instructor. Additional 500-level Science or Engineering courses may be taken on the recommendation of the student's Master's Committee. Up to three additional courses may be required to be taken as prerequisites or required background courses. The total of all courses taken shall not exceed eight. The student's Master's Committee shall recommend to the program coordinator all courses to be taken for graduate credit after discussion with the candidate. In addition, original research work must be pursued and embodied in a thesis submitted for degree credit. Credit for graduate study previously undertaken may be given for a maximum of two courses, but the duration of study at the University of Windsor may not be reduced to less than the minimum of one year.

2) *Examination Requirements:* The final examination of a candidate for the Master's degree shall be an oral defense of the thesis at a public lecture.

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61-530. Crustal Fluids

Physical and chemical architecture of crustal fluid flow systems. Sources of fluids, fluid geochemistry, fluid-mineral equilibria and interactions, fluid inclusions, controls and mechanisms of fluid flow. The role of fluids in selected geological processes will be investigated. (3 lecture/seminar hours a week.)

61-531. Fluid Flow in Porous Media

Evolution and dynamics of fluids in porous media: theory for groundwater flow; multiphase flow; fluid-mineral equilibria and interactions; chemical transport and reactive flows. The role of fluids in selected low temperature environments will be investigated. (3 lecture/seminar hours a week.)

61-532. Numerical Simulation of Subsurface Fluid Migration

Numerical modelling theory, methods and implementation into computer software for subsurface fluid flow and mass transport; finite difference method; finite element method; integral equation method; conceptual model design and sensitivity analysis; applications to exploration, environmental and engineering issues. (3 lecture/seminar hours a week.)

61-544. Sedimentology of Detrital Deposits

Hydrodynamic significance of primary sedimentary structures, post-depositional modification of sediments; biostratification and trace fossils; sedimentary environments; sedimentological methods in economic geology. (3 lecture hours a week.)

61-545. Advanced Topics in Igneous Petrology and Global Tectonics

Petrochemistry of igneous rocks in important geotectonic settings and implications for mantle and crustal processes. Precambrian greenstone belt magmatism and crustal evolution. Major and trace element geochemistry and stable and radiogenic isotopic systematics of igneous rocks. (Prerequisite: [61-565](#) or consent of instructor.) (3 lecture and/or seminar hours a week.)

61-548. Advanced Topics in Environmental Geochemistry

An investigation into the effects of near-surface geochemical processes and activities on the migration of chemicals in the environment. Topics to be covered include current research in: geomicrobiology, analytical techniques, colloid chemistry, contaminant transport, and bioavailability. (3 lecture and/or seminar hours a week.) (Prerequisite: [61-565](#) or consent of instructor.)

61-549. Advanced Topics in Sedimentology and Sedimentary Geochemistry

Principles of facies models as derived from modern environments and ancient successions; geochemistry and mineralogy of sedimentary rocks and natural waters; chemistry and mineralogy of weathering; geochemical facies analysis; fractionation of elements and isotopes during sedimentation; chemical diagenesis; organic matter and mineral diagenesis; geochemical evolution of sedimentary rocks through geologic history. (Prerequisite: [61-565](#) or consent of instructor.) (3 lecture hours a week.)

61-555. Advanced Topics in Geophysics

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Recent advances in selected geophysical topics. Subjects may include paleomagnetism and environmental magnetism, tectonophysics, modern analytical methods or exploration geophysics. Lectures and seminars on fundamentals and selected case histories. (Prerequisite: consent of the instructor.) (3 lecture and/or seminar hours per week.)

61-556. Applied Geophysical Techniques

The theory, methodology and application of selected geophysical techniques are studied through the design and implementation of a class project. Surveyed techniques may include: magnetic, gravitational, ground penetrating radar, induced polarization and others. (Prerequisite: consent of instructor.) (3 lecture and/or project hours a week.)

61-559. Underground Storage

Exploitation of subsurface space for storage of industrial products and wastes. Possible environmental impact of poorly planned underground storage. Economics of subsurface vs. surface storage. Emphasis on Canadian case histories. (3 lecture hours a week.)

61-560. Advanced Topics in Mineral Deposit Geology and Geochemistry

Discussion of current genetic models for selected types of mineral deposits. Ore-forming processes. Selected topics in hydrothermal geochemistry. (Prerequisite: 61-565 or consent of instructor.) (3 lecture and/or seminar hours a week.)

61-564. Research Methods in Geochemistry

Sampling of geological materials. Sampling statistics. Modern analytical methods in geochemistry theory and selected applications. Data analysis. (Prerequisite: consent of instructor.) (3 lecture and/or project hours a week.)

61-565. Advanced Topics in Geochemistry

A discussion of key concepts in geochemistry. Topics may include aqueous complexation and solubility, mineral stability, radiogenic and stable isotopes, fluid phase equilibria, trace elements, thermodynamics, and kinetics. (Prerequisite: consent of instructor.) (3 lecture and/or seminar hours a week.)

61-574. Advanced Topics in Geoinformatics

Selected analytical and processing techniques in geographical information systems (GIS), remote sensing (RS), environmental modelling, and spatial decision support systems (SDSS). Spatial data acquisition methods and database integration. Application examples and technical issues. (Prerequisite: consent of the instructor.) (3 seminar hours per week.)

61-575. Advanced Integration of Remote Sensing and GIS Techniques

Lectures, readings and practical projects will focus on image rectification, restoration, registration, and integration of digital photographic, multispectral scanner data, radar image data and ancillary data in a GIS environment. Multitemporal data merging, change detection procedures, and multi-source image classification decision rules will also be emphasized. (Prerequisite: 61-574 or consent of instructor.) (3 lecture, seminar, and/or project hours a week.)

61-576. Environmental Modelling and Spatial Simulation

The modelling process; integrating environmental models and GIS; spatial heterogeneity and representative areal units; measurement scales vs. process scales; sensitivity and uncertainty analysis; model complexity; effects of input data quality; simulation model experiments; technical and conceptual limits of environmental modelling. Students will complete a small research project. (Prerequisite: 61-574, or consent of instructor.) (3 seminar hours a week, plus project.)

61-580. Graduate Seminar

Discussion of current topics in the earth sciences in seminars given by students, faculty members, and visiting speakers. Students are expected to participate in discussions

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Faculty of Engineering:
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Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering:
Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials:
Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing
Systems Engineering (IMSE):
Graduate Faculty

- IMSE: Areas of
Specialization

and present a seminar. (Students must register in this course in the Fall and Winter terms of full-time registration in the M.Sc. program and in the first two years of the Ph.D. program.) (1 hour a week.)

61-582. Master's Thesis Proposal

Preparation of a written report containing: a thorough review of the literature relevant to the proposed research topic; an outline of the proposed research including a discussion of the expected contributions to the subject area and how these relate to previous work; a description of the relevant methods; and the expected timetable to completion. The student shall be examined by his or her advisory committee on the content of the proposal and related background knowledge, and shall present the proposal in a public lecture.

61-590. Special Topics

(May be taken for credit more than once provided that the topics are different.)

61-700. Doctoral Research Proposal

Preparation of a written research proposal containing: a thorough review of the literature relevant to the proposed research topic(s); an outline of the proposed research including a discussion of the expected contributions to the subject area and how these relate to previous work; a description of the relevant methods; and the expected timetable for completion. The proposal shall be presented in a public lecture. The student shall be examined by his or her advisory committee on the content of the proposal. The student must demonstrate an understanding of the context of the research project in the light of published research on the topic(s) presented, an understanding of the objectives and the methods to be used, and be able to articulate the contribution that the research will make to the advancement of knowledge. (Prerequisite: registration in the Ph.D. program.)

61-797. Master's Thesis

61-798. Doctoral Dissertation

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Physics: Graduate Faculty

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Political Science: Graduate
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Psychology: Graduate Faculty

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Social Work: Graduate
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ECONOMICS

GRADUATE FACULTY

Professor

Suh, Sang-Chul; B.A. (Korea), M.A. (Tai-wan), Ph.D. (Rochester)-1994.

Associate Professor

Wang, YunTong; B.Sc. (Hebei), M.Sc. (Huazhong), Ph.D. (Nankai), Ph.D. (Montreal)-2003.

Assistant Professor

Li, Dingding; B.Sc. (Hebei), M.A., Ph.D. (Guelph)-2002.

Faculty

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Odette School of Business:
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Chemistry and Biochemistry:
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Communication Studies:
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Admission Requirements

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1) A student with an honours Bachelor's degree in Economics or its equivalent, with at least a major average of B, may be admitted to a minimum one-year Master's program. Applicants are expected to have completed one course in each of calculus, linear algebra and statistics. Applicants who have not completed the above mathematics requirements are encouraged to do so prior to beginning their graduate course work. 2) A student with a general degree, or an honours graduate in another discipline, with at least a B standing, may be admitted to a minimum two-year Master's program.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Program Requirements

[Programs Offered - Overview](#)

1) Students in the two-year program are required to take a make-up or qualifying year in their first year of the M.A. program. Selection of courses is to be made in consultation with a graduate advisor.

[Application Procedures](#)

2) Students in the one-year M.A. program (Candidate year) are required to complete:

[Faculty Regulations](#)

a) eight graduate courses and a major paper normally to be in conjunction with one of the courses OR nine graduate courses (no major paper);
b) at least one course in microeconomics, one in macroeconomics and one in econometrics. Students intending to enter a Ph.D. program are advised to take [41-501](#), [41-502](#), [41-503](#), [41-504](#), [41-541](#), and [41-542](#).

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Odette School of Business:
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- Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

- Chemistry and Biochemistry:
Programs

- Chemistry and Biochemistry:
Courses

Communication Studies:
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Computer Science: Graduate
Faculty

- Computer Science:
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Earth Sciences: Graduate
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- Earth Sciences: Programs

- Earth Sciences: Courses

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

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Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
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Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

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[Mechanical Engineering:
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Faculty of Nursing: Graduate
Faculty

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Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

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Sociology: Graduate Faculty

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ECONOMICS: COURSE DESCRIPTIONS

All courses listed will not necessarily be offered in every term. Courses are normally three hours a week.

41-501. Microeconomics

An intensive review of the theory of the firm and consumer theory.

41-502. Macroeconomics

An intensive review of theories of the determination of aggregate output, employment and price level.

41-503. Microeconomic Theory II

Additional topics in microeconomic theory.

41-504. Macroeconomic Theory II

Additional topics in macroeconomic theory.

41-510. Theory of International Economics

An introduction to the problem of international trade of goods and services, and the related issues of exchange rate determination and balance of payment; Domestic policies under alternative exchange rate regimes; Money and exchange rates in models with sticky or flexible prices.

41-516. Labour Economics I

The demand and supply analysis; human capital; trade unions and collective bargaining; wage structures; labour mobility.

41-531. Industrial Organization

A theoretical and empirical analysis of firms and markets.

41-541. Econometric Theory I

The general linear model, selected single equation problems, and an introduction to simultaneous equations methods.

41-542. Econometric Theory II

Additional topics in econometric theory (Prerequisite: [41-541.](#))

41-543. Applied Econometrics

The specification, estimation and testing of economic models. Emphasis will be on the classical linear regression model, the implications or violations of its basic assumptions and diagnostic testing. (This course is not intended for students who take [41-541.](#))

41-550. Monetary Theory

A survey of recent developments in the theory of money and monetary control of an economy, in addition to selected topics.

41-580. Models of Strategic Behaviour

A review of game theory showing how strategic reasoning can be used as a tool in decision theory. Topics include solution concepts for Normal form and Extensive form games, plus applications.

Faculty

• Biological Sciences:
Programs

41-581. Mathematical Economics

The formal properties of selected economic models. Includes an examination of the problems of existence, uniqueness and stability of solutions.

• Biological Sciences:
Courses

41-582. Selected Topics in Advanced Theory

An examination of the most recent literature on one or two selected topics in theory.

Odette School of Business:
Graduate Faculty

41-590. Regional Economics

Theoretical and policy issues relating to large regions, including, for example, distribution of wealth, distribution of productive resources, and migration.

• Business: Programs

41-591. Urban Economics

Theoretical and policy issues relating to urban areas, including, for example, urban growth and land use.

• Business: Courses

41-594. Special Studies in Economics

Research and reading course in a selected field approved by the Department.

Chemistry and Biochemistry:
Graduate Faculty

41-796. Major Paper

• Chemistry and Biochemistry:
Programs

• Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

• Communications Studies:
Programs

• Communication Studies:
Courses

Computer Science: Graduate
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Earth Sciences: Graduate
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[Engineering Materials: Graduate Faculty](#)

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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

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Political Science: Graduate
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Psychology: Graduate Faculty

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Social Work: Graduate
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FACULTY OF EDUCATION

GRADUATE FACULTY

Associate Professors Emeriti

McKay, Linda; B.S. (North Carolina), M.S. (Maryland), Ph.D. (Wayne State)-1968.

Diffey, Norman R.; B.A., Dip.Ed. (Oxon.), M.A. (McMaster), Ph.D. (McGill)-1987.

Professors

Morton, Larry; B.A. (Waterloo), B.Th. (O.B.C.), B.Ed. (O.T.E.C.), M.A., Ph.D. (Toronto)-1988.

Glassford, Larry; B.A., Dip.Ed. (Western Ontario), M.A. (Carelton), Ph.D. (York)-1991.

Rogers, Pat; B.A. (Oxon.), M.Sc. (Toronto), Ph.D. (London)-2001.

Ezeife, Anthony; B.Sc. (Lagos), M.A., M.Sc. (Columbia), Ph.D. (Nigeria)-2002.

Associate Professors

Flewelling, Janet; B.A. (Guelph), B.Ed. (Queen's), M.Ed., Ed.D. (Toronto)-1990.

Tarailo, Michele; B.F.A., B.Ed. (Windsor), M.F.A. (Cranbrook), Ed.D. (Wayne State)-1990.

Shantz, Doreen; B.A. (Wilfrid Laurier), M.Ed., Ed.D. (Toronto)-1991.

Starr, Elizabeth; B.A. (Guelph), B.Ed. (Queen's), M.Ed. (Acadia), Ph.D. (Alberta)-1996.

Egbo, Benedicta O.; B.Ed., Dip.Ed. (Al-berta), M.A., Ph.D. (Toronto)-1998.

Bayley, Jonathan G.; B.Mus. (McGill), B. Ed., M. Mus. (Alberta), M.M. (Eastman), Ph.D. (Ohio State)-2003.

Dlamini, S. Nombuso; B.A., Dipl.Ed. (Swaziland), M.A. (St. Mary's), Ph.D. (Toronto)-2003.

Assistant Professors

Smith, Kara; B.Comm. (Windsor), B.A. (Waterloo), B.Ed. (Western Ontario), M.Ed. (Western Ontario), Ph.D. (Stirling)-1998.

Allen, Andrew; Dip. Tech., B.Tech. (Ryerson), B.Ed., M.Ed. (York), Ph.D. (Toronto)-2002.

Beckford, Clinton L.; Cert. In Teaching (Church), B.A., Ph.D. (West Indies)-2002.

Faculty

• Biological Sciences: Programs

Cherian, Finney V.; B.Sc., B.Ed., M.Ed., Ph.D. (Toronto)-2004.

Daniel, Yvette; B.A., M.Ed., Ph.D. (York)-2004.

• Biological Sciences: Courses

Martinovie, Dragana; B.Sc., M.Sc. (Belgrade), Ph.D. (Toronto)- 2005

McInnes, Alison; B.A. (Manitoba), M.Cl.Sc. (Western Ontario), Ph.D. (Toronto)-2005.

Odette School of Business: Graduate Faculty

Stanley, Darren; B.Sc. (Acadia), M.Sc. (Simon Fraser), Ph.D. (Alberta)-2005.

• Business: Programs

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Chemistry and Biochemistry: Graduate Faculty

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Communication Studies: Graduate Faculty

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JOINT DOCTOR OF PHILOSOPHY IN EDUCATIONAL STUDIES

[Statistics Canada Disclaimer](#)

The Joint Ph.D. in Educational Studies is offered jointly by Brock University, Lakehead University, The University of Western Ontario, and the University of Windsor. The designation of "home university" is applied to the home university of the doctoral candidate's dissertation supervisor. The student has the right to take courses and seminars or to use the academic facilities at any of the participating universities in accordance with the approved plan.

[Important Dates: 2007-08](#)

The regulations governing the preparation of theses and conduct of examinations will be those of the supervisor's home university.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

The degree requirements, regulations and procedures for the Joint Ph.D. program have been approved by the appropriate governing body of each institution. Where there is a conflict in regulations and procedures:

[Programs Offered - Overview](#)

- (a) in academic matters, the regulations of the institution offering the course will prevail;
- (b) in non-academic matters, the regulations of the institution at which the student is registered will prevail.

[Application Procedures](#)

PROGRAM GOALS AND OBJECTIVES

[Faculty Regulations](#)

The joint program will accomplish the following goals:

[The Degree of Doctor of
Philosophy](#)

- 1) provide greater access to advanced study in education for qualified candidates across a wider geographic range in the province;
- 2) promote the growth of research activity and professional development through collaboration among practitioners, scholars, educational institutions, and Faculties of Education;
- 3) foster inter-university links and promote partnerships among Ontario universities;
- 4) further the expansion of research culture and service throughout the province; and
- 5) contribute to the renewal of the professoriate and educational leadership in Ontario during the upcoming period of heavy retirement in the universities and school systems.

[The Master's Degree](#)

[Research Institutes](#)

The objectives of the program are to produce graduate students who will:

[General Courses, FGSR](#)

- 1) contribute to the development of knowledge and expertise in teaching/ learning at all levels on the education continuum;

[Biological Sciences: Graduate](#)

- 2) contribute to the solution of problems/issues in Canadian education;

Faculty

• Biological Sciences: Programs

3) promote scholarly enquiry and the development of methodological advances in the study of education;

• Biological Sciences: Courses

4) integrate theory and practice in education; and

5) assume positions of leadership in Faculties of Education, school systems, and other public- and private-sector institutions concerned with education.

Odette School of Business: Graduate Faculty

• Business: Programs

ADMISSION REQUIREMENTS

Normally, the minimum academic requirement for admission to the Ph.D. is successful completion of a Master of Education or Master of Arts in Education with an A standing.

• Business: Courses

In exceptional circumstances, applicants with lower formal academic qualifications but with a strong track record of professional experience related to the proposed area of doctoral study may be admitted. In these cases, however, the Admissions Committee may place additional requirements upon the applicant. Additional requirements will be stated on the offer of admission.

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

Applicants must provide evidence of research competence normally demonstrated by a master's thesis.

• Chemistry and Biochemistry: Courses

English is the primary language of communication and instruction in the program. Applicants from other countries who have not completed a degree at a university where the primary language of instruction is English must pass the Test of English as a Foreign Language (TOEFL) with a minimum score of 600 (250 computer-based) or an equivalent demonstration of proficiency.

Candidates who are working on the degree at a distance from the home university must purchase the software and access to the internet which will enable them to participate fully in the required courses.

Communication Studies: Graduate Faculty

• Communications Studies: Programs

ADMISSION WITH ADVANCED STANDING

• Communication Studies: Courses

Students may receive advance credit for a maximum of one-half course specialization elective at the graduate level provided that this course has not been credited to a degree or certificate already awarded, is relevant to the proposed area of study and has been taken within three years of admission. Requests for advanced credit must be declared prior to admission. No substitution may be made for Core Seminars I and II or the Joint Specialization Elective via distance education.

Computer Science: Graduate Faculty

• Computer Science: Programs

RESEARCH PLAN

• Computer Science: Courses

Applicants must submit a description of their proposed area of research (approximately 2-3 typed pages). When an applicant meets the basic requirements for admission, the potential supervisor and/or the Program Director will assist the applicant in developing a plan of study which will be presented to the Program Committee for approval. If approved, the applicant will proceed to register as a doctoral student at the home university of the dissertation supervisor and will be subject to the general degree regulations of that university. The offer of admission will be made to the applicant by the home university.

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

Dissertation supervisors will be required to report candidates' progress annually to the Program Committee and to appropriate authorities at the participating universities. Normally, candidates will be expected to complete course requirements and the comprehensive portfolio, and to submit a research proposal within three years of their initial registration. Changes to the approved plan of study must be approved in advance by the Program Director in consultation with the candidate and the supervisor.

• Earth Sciences: Courses

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
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- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

PROGRAM FIELDS OF STUDY

1) Cognition and Learning: Cognition and learning draws primarily upon cognitive, developmental, social, and educational psychology as well as science and technology, to examine critically the cognitive, behavioural, emotional, and social processes of educators and students as they engage in teaching and learning. Integral components of this field include, but are not limited to, issues concerning best practices, remedial and contemporary instruction, assessment and evaluation, professional development, curriculum development and implementation, metacognition, and learning theories.

2) Educational Leadership and Policy Studies: This field of study encompasses a range of humanities and social science disciplines to explore the morale, social, and cultural purposes of educational organizations, policy and leadership. It draws upon the works of key scholars in organizational, administrative and policy studies to articulate the philosophical, theoretical and methodological frameworks that inform scholarship and practice. These frameworks situate the major issues and debates confronting educational systems within their larger socio-political and socio-cultural contexts.

3) Social/Cultural/Political Contexts of Education: Education occurs in a dynamic, complex, and contested milieu. The Social/Cultural/Political Contexts of Education field of study critically explores the interplay between culture and education from varied historical, philosophical, and theoretical perspectives with the intent of fostering emancipatory research and democratic practice. Consideration is given but not limited to social constructs of race, class, gender, sexuality, and ability/disability, and how they intersect and influence educational experiences.

Applicants to the program must declare a field of study prior to admission to the program.

PROGRAM REQUIREMENTS

Doctoral candidates must be familiar with the academic regulations governing graduate studies at the home university.

Course Requirements

- (a) Core Seminar I ([80-602](#)) and Core Seminar II ([80-604](#));
- (b) The Specialized Elective ([80-651](#)), one Joint Ph.D. Specialization Elective Course via distance education, and one additional Specialization Elective Course. Candidates may meet the requirement for the latter through a graduate level course offered at any of the participating institutions;
- (c) Research Proposal Colloquium ([80-669](#)) (via distance education). (Prerequisite: must have completed two terms of full-time residency or equivalent.)

Comprehensive Portfolio

The Comprehensive Portfolio ([80-680](#)) requires doctoral candidates to demonstrate their potential as scholars through the satisfactory completion of authentic tasks. The criteria used by the dissertation supervisory committee to set tasks and assess a candidate's performance are:

- (a) an understanding of the concepts, theories, and issues in the field of study;
- (b) a knowledge of current literature and research methods in the field of study;
- (c) the ability to analyze and synthesize current literature on a specific problem within the field of study;
- (d) an understanding of and ability to critique research in the field of study and research paradigms.

- [IMSE: Courses](#)

The tasks candidates are expected to complete include the dissertation research proposal, and three other tasks. Candidates must defend their portfolios.

[Mechanical Engineering:
Graduate Faculty](#)

The candidate's defence will be evaluated by the dissertation supervisory committee and at least one other member of the core faculty selected by the Program Director. Candidates are required to present their completed portfolio to an audience in a forum such as the Core Seminar.

- [Mechanical Engineering:
Areas of Specialization](#)

Candidates may not begin their dissertation research until the portfolio requirements have been completed successfully.

- [Mechanical Engineering:
Courses](#)

Dissertation

[English: Graduate Faculty](#)

The Dissertation supervisory committee will involve faculty from at least two participating universities, including whenever possible and reasonable, a member from the university closest to the candidate's home to serve as co-supervisor in cases where the supervisor is at some distance. The regulations and procedures governing the preparation of theses and conduct of examinations will be those of the supervisor's university.

- [English: Programs](#)

- [English: Courses](#)

Residence

[Environmental Science
\(GLIER\): Graduate Faculty](#)

Candidates must meet a minimum residency of four terms. Two terms of residency may be fulfilled by completion of the Core Seminars I and II. The other two terms of residency must be consecutive. It is strongly recommended that candidates complete two of the terms of residency after they have defended their comprehensive portfolio and are authorized to commence their doctoral research. Credit for residency may be given, with the approval of the Program Committee and the home university, for research carried out off-campus.

[ES: Programs](#)

[ES: Courses](#)

Candidates are required to maintain continuous registration. They shall complete the requirements for the degree within a minimum of three years and a maximum of six years.

[History: Graduate Faculty](#)

- [History: Programs](#)

Recommendations for a time extension or leave of absence are subject to the regulations and procedures at the home university and must be approved in advance by the supervisor and the Joint Program Committee.

- [History: Courses](#)

DOCTORAL COURSES

[Faculty of Human Kinetics:
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Core Seminars

- [Kinesiology: Programs](#)

[80-602](#). Core Seminar I: Research, Theories, and Issues
[80-604](#). Core Seminar II: Research, Theories, and Issues

- [Kinesiology: Courses](#)

Specialization Elective Courses

[Mathematics and Statistics:
Graduate Faculty](#)

Policy and Leadership

[80-621](#). Educational Leadership and Policy Studies

- [Mathematics and Statistics:
Programs](#)

Sociocultural Contexts of Education

[80-631](#). Social/Cultural/Political Contexts of Education

- [Mathematics and Statistics:
Courses](#)

Cognition and Learning

[80-641](#). Conceptual Bases for Cognition and Learning

Other Required Courses

[80-651](#). The Specialized Elective

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Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

- 80-669. Research Proposal Colloquium
- 80-680. Comprehensive Portfolio
- 80-798. Doctoral Dissertation

THE MASTER OF EDUCATION DEGREE

The objectives of the Master of Education program are to provide candidates with opportunities to develop:

- 1) a commitment to intellectual enquiry and scholarship as a basis for continuing professional growth;
- 2) a knowledge of current theory and research relevant to the curriculum and administration of elementary and secondary schools; and
- 3) an understanding of, and respect for, the principles of educational research.

Admission Requirements

1) In addition to the requirements set forth in 1.3 and 1.6.1 for admission to the Faculty of Graduate Studies and Research, and to programs leading to a Master's degree, applicants to the Master of Education program must:

- (a) present an undergraduate degree from an approved university with standing in the B range overall and at least B standing in the final two years of study;
- (b) present a Bachelor of Education degree with standing in the B range or the equivalent professional preparation;
- (c) have at least one year of successful professional experience in education;
- (d) submit a "Statement of Personal Objectives" outlining the applicant's professional background and reasons for seeking a graduate degree in education.

2) Applicants who fulfill the requirements above with the exception of (c) may be considered if they hold an honours Bachelor's degree or the equivalent with standing in the B range overall and at least a B standing in the final two years of study.

Moreover, in exceptional cases, applicants may be considered who do not possess a Bachelor of Education degree or equivalent, but who hold an honours Bachelor's degree or the equivalent with standing in the B range overall and at least a B standing in the last two years, and who can demonstrate experience, interests, and motivation that make them appropriate applicants to the program.

3) *Advanced Standing*: Applicants may be granted credit for up to two graduate term courses completed before application to the Master of Education program and taken in another program at the University of Windsor or at another accredited institution. Requests for advanced standing will be considered only at the time of application and only for graduate courses completed with at least B standing. The Faculty will not grant credit for any course taken more than seven years before all the requirements for the degree have been fulfilled.

4) Admission to the Master of Education program is to the II Master's Candidate level.

Program Requirements

- 1) Candidates for the Master of Education degree will pursue studies in one of two areas of concentration:
 - (a) Curriculum Studies;
 - (b) Educational Administration.

2) Candidates will follow either a major paper, a thesis, or a course-based program.

• [Visual Arts: Programs](#)

• [Visual Arts: Courses](#)

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Those who wish to include a thesis in their program must request approval from the Graduate Committee of the Faculty. Normally, the Committee will not consider such requests from part-time candidates until four courses have been completed, which should include [80-510](#) (Statistics in Education) and [80-527](#) (Research in Education).

Additional information concerning the procedures for theses and major papers may be obtained from the Coordinator of Graduate Studies.

3) In addition to the general requirements for a Master's degree set forth in "[The Master's Degree](#)" section, candidates in:

the thesis and major paper program are required to complete successfully the equivalent of a minimum of ten term courses and the comprehensive examination in Education. Specific requirements include:

- (a) three compulsory courses, [80-510](#) (Statistics in Education), [80-527](#) (Research in Education), and [80-524](#) (Fundamentals of Curriculum Theory and Development) or [82-529](#) (Theories of Educational Administration), depending on their area of concentration;
- (b) a research project resulting in either a major paper ([80-796](#)), with the value of two term courses, or a thesis ([80-797](#)), with the value of four term courses;
- (c) candidates proceeding to the degree by major paper are required to complete five additional courses, at least three of which must be chosen from the option courses listed for their area of concentration;
- (d) candidates proceeding to the degree by thesis must complete three additional courses, at least two of which must be selected from the option courses listed for their area of concentration;
- (e) in the case of candidates following thesis programs, the comprehensive examination is the responsibility of their thesis committees.

the course-based program are required to successfully complete:

- (a) [80-527](#) (Research in Education), and [80-795](#) (Final Project Seminar)
- (b) one of [80-510](#) (Statistics in Education) or [80-530](#) (Qualitative Methods in Educational Research)
- (c) one of [80-524](#) (Fundamentals of Curriculum Theory and Development) or [82-529](#) (Theories of Educational Administration); and
- (d) six optional courses from the list of courses under "Studies in the Area of Concentration", to include a minimum of four courses from the candidate's area of concentration.

4) Candidates with previous courses in research methods or statistics may request the Graduate Committee of the Faculty for permission to substitute other courses for either one or both of [80-527](#) and [80-510](#).

5) Transfer Credit: While the student is registered in the M.Ed. program, credit for up to two graduate term courses normally may be applied towards the degree from another Faculty at the University of Windsor or transferred from another accredited institution. Candidates must receive the approval of the Executive Dean of Graduate Studies and Research or designate before taking such courses. Credit will be granted only for courses completed with at least a B standing.

6) Full-time candidates must complete all requirements for the degree within three years of their first registration.

7) Part-time students may not carry more than two courses in any term and must complete all requirements for the degree within five years of their first registration.

STUDIES IN THE AREA OF CONCENTRATION

Compulsory Courses

- 80-510. Statistics in Education
- 80-527. Research in Education
- 80-524. Fundamentals of Curriculum Theory and Development*
- 80-795. Final Project Seminar**
- 80-796. Major Paper**
- 80-797. Thesis**
- 82-529. Theories of Educational Administration***

* Compulsory for students in Curriculum Studies.

** All students must complete either a Final Project, a Major Paper or a Thesis.

*** Compulsory for students in Educational Administration.

Educational Administration Options

- 80-530. Qualitative Methods in Educational Research
- 80-531. Supervision of the Instructional Process
- 80-534. Individual Reading
- 80-555. Strategies for the Implementation of Change in Education
- 80-591. Special Topics in Education
- 82-529. Theories of Educational Administration
- 82-532. Organization and Administration of the School
- 82-535. Organizational Behaviour in Educational Institutions
- 82-550. Issues in Education
- 82-560. Politics of Education
- 82-561. Legal Aspects of Education
- 82-562. Educational Finance
- 82-565. Sociological Aspects of Education
- 82-566. Interpersonal Relationships in Education

Curriculum Studies Options

- 80-524. Fundamentals of Curriculum Theory and Development
- 80-530. Qualitative Methods in Educational Research
- 80-534. Individual Reading
- 80-554. Fundamentals of Instructional Design
- 80-591. Special Topics in Education
- 81-503. The Psychology of Learning and Teaching
- 81-537. Language Arts in the Elementary School
- 81-539. Second Language Teaching: Theories and Applications
- 81-541. The Social Sciences Curriculum
- 81-547. Learning in Science
- 81-551. Microcomputers for Educators
- 81-552. Curriculum Developments in Mathematics Education
- 81-553. The Teaching and Learning of Mathematics
- 81-556. Approaches to Literacy Development
- 81-557. The English Language Arts
- 81-558. Psychology of Learning Problems
- 81-572. Theory and Practice in Early Childhood Education



Graduate Calendar Spring 2007

[Preface and Revisions](#)

FACULTY OF EDUCATION: COURSE DESCRIPTIONS

[PROGRAMS OF STUDY
\(Alpha-listing\)](#)

Not all courses will necessarily be offered each year. All 600-level courses are restricted to students in the joint Ph.D. program.

[Statement of Responsibility](#)

80-510. Statistics in Education

This course will deal with the following: descriptive and inferential statistical procedures; commonly used one- and two-sample tests; an introduction to analysis variance and corresponding research designs. (3 lecture hours a week.)

[Statistics Canada Disclaimer](#)

80-524. Fundamentals of Curriculum Theory and Development

A survey of the major theories of curriculum that have influenced education Canada. An outline of the techniques employed in curriculum development, including sources of influence and control, specification of outcomes, selection and coordination of activities, strategies, resources and evaluation. (3 hours a week.)

[Important Dates: 2007-08](#)

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

80-527. Research in Education

An overview of educational research methods: e.g., the interpretation of research literature, the identification and use of data bases, the design of research proposals and the application of specific methods to research projects. (3 hours a week.)

[Programs Offered - Overview](#)

80-530. Qualitative Methods in Educational Research

This course will examine the concepts and methods involved in carrying out educational research through naturalistic observation, participant observation, case studies, and other qualitative approaches. (3 hours a week.)

[Application Procedures](#)

80-531. Supervision of the Instructional Process

A practice-oriented course designed to develop administrative competency in the supervision of instruction. The focus will be threefold: (1) awareness and recognition of specific technical skills, (2) the development of competence in interpersonal and group skills, and (3) a general examination of supervisory approaches. (3 hours a week.)

[Faculty Regulations](#)

80-534. Individual Reading

The Individual Reading course is intended to permit students with special interests in, and knowledge of, particular areas of education not covered in sufficient depth in available courses to pursue those interests through independent, supervised study. (Permission of an advisor and of a subcommittee of the Graduate Studies Committee is required.)

[The Degree of Doctor of
Philosophy](#)

[The Master's Degree](#)

80-554. Fundamentals of Instructional Design

This course will consider current principles, research, theory and practice in the design, development, implementation and evaluation of instruction within various learning and teaching settings. (3 hours a week.)

[Research Institutes](#)

80-555. Strategies for the Implementation of Change in Education

Procedures for dissemination, adoption, implementation, and integration of changes for teachers, administrators, and leaders of professional organizations. Attention will be given to theoretical models and their applications, change agency, and modification of organizational climate and structure. (3 hours a week.)

[General Courses, FGSR](#)

[Biological Sciences: Graduate](#)

80-591. Special Topics in Education

Faculty

• Biological Sciences: Programs

• Biological Sciences: Courses

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

Selected advanced topics in Education based on new developments in particular areas, special faculty interests, and opportunities afforded by the availability of visiting professors. Special topics are subject to Graduate Committee approval and may be taken more than once provided the topics are different. Current topics include: 1. The Recent History of Education in Ontario; 2. Pervasive Developmental Disorders; 3. Environmental Education, 4. Tertiary Teaching and Learning. (3 hours a week.)

80-602. Core Seminar I: Research, Theories, and Issues

In Core Seminar 1, the history and philosophical foundations of education are examined through the three fields of study. As well, students are introduced to qualitative methods of research in education, encompassing interview, phenomenological, ethnographic, constructivist, and case study approaches to data collection, analysis, and interpretation.

80-604. Core Seminar II: Research, Theories, and Issues

In Core Seminar 2 students examine research, theories, and issues in the fields of study via a specific theme which is identified annually. For example, the theme might be bullying, or caring education, or gender issues. As well, students are introduced to quantitative methods of research in education, encompassing true experiments, quasi experiments, and correlational studies.

80-621. Educational Leadership and Policy Studies

This course introduces students to the origins and intellectual traditions of theories that influence how we organize education. Students develop an understanding of sociological paradigms that have influenced educational systems over time, and develop perspectives that enable them to think critically and creatively about contemporary and future issues in educational leadership, policy, and organizations.

80-631. Socio/Cultural/Political Contexts of Education

This course centres around a critical examination of cultural, historical, and theoretical perspectives in education. Bodies of knowledge related to understanding the complexities of sociocultural influences in education are the main focus. Power relations at play and how they are negotiated in everyday practice are considered. Using the sociocultural framework developed in the course, students also investigate their specific areas of interest (for example, curriculum theory and practice).

80-641. Cognition and Learning

This course provides an analysis of epistemological theories through a critical examination of foundational and current research and a reflection on historical and philosophical orientations as they relate to contemporary issues in cognition and learning.

80-651. The Specialized Elective

The content for this course must relate to the students dissertation topic and field of study. The course may be selected from the graduate studies calendar of courses from one of the participating universities, or it may be taken as a directed study. A directed study takes place under the supervision of a faculty member with appropriate expertise. Usually, the student completes a sustained program of study relating to a topic of current theoretical and/or empirical interest leading to the production of a substantial research paper. Directed studies are intended for students with special interests which cannot be satisfied by calendar courses.

80-669. Research Proposal Colloquium

In this course students examine theory and research in relation to their intended dissertation topic. Students develop a topic idea in the form of a dissertation proposal, defining a research question and a theoretical base for intended study. Students examine research questions in relation to varied methodologies, so that a diverse examination of research frameworks takes place through WebCT based discourse.

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

80-680. Comprehensive Portfolio

(3 course equivalencies.)

80-795. Final Project Seminar

Candidates pursuing the course-based option, under the guidance of the instructor and in consultation with other faculty where appropriate, will engage in a collaborative process leading to the production of a final project on an issue or topic of inquiry of relevance to professional practice. The final project will be grounded in relevant research and show evidence of knowledge, skills of inquiry, reflection and problem-solving acquired through the other courses. It will normally be taken following completion of the other course-work. (3 hours a week.)

80-796. Major Paper

Conducted under the guidance of at least two members of the Faculty, a major paper may analyze and evaluate a substantial body of scholarly literature or describe or interpret a research project undertaken by the student. The major paper is subject to an oral examination (see Thesis or Major Paper, 1.6.3, and Program Requirements, 9.2.2.)

80-797. Thesis

(See Thesis or Major Paper, 1.6.3, and Program Requirements, 9.2.1.)

80-798. Doctoral Dissertation

(See Dissertation, 1.5.3, and Program Requirements, 9.2.1.) (10 course equivalencies.)

81-503. The Psychology of Learning and Teaching

This course will provide students with an in depth view of psychological theory and research towards the understanding of learning and teaching. While both behavioural and cognitive perspectives will be discussed, the emphasis will be upon cognitive theory and application. Topics will include behaviourism, behaviour modification, information processing, metacognition, cognitive behaviour modification, cognitive strategy training, motivation and individual differences. (3 hours a week.)

81-537. Language Arts in the Elementary School

This course will examine issues in language arts instruction in the light of current language theories. The focus is on current research and its practical application, with special emphasis on methods of instruction, teacher strategies, student activities and evaluation practices. (3 hours a week.)

81-539. Second Language Teaching: Theories and Applications

This course reviews current thinking on the nature of language, communication and second-language learning and examines implications for teaching methods and curriculum design. (3 hours a week.)

81-541. The Social Science Curriculum

An examination of trends and development of social science curricula. Curriculum theory will be applied to one or more of the social sciences within the context of provincial guidelines and the academic and professional qualifications of the students. (3 hours a week.)

81-547. Learning in Science

This course will consider current research and theory in the promotion of science as a process and product. Included will be a critical survey of recent issues in science education. The focus will be on their implications for curriculum and practice at the classroom level. An examination of some of the major difficulties in the design, development, implementation, and evaluation of science curricula. (3 hours a week.)

81-551. Microcomputers for Educators

A comprehensive survey of the uses of microcomputers in the classroom, including a discussion of current issues in the use of microcomputers by educators. (3 hours a

- IMSE: Courses

week.)

Mechanical Engineering:
Graduate Faculty

- Mechanical Engineering:
Areas of Specialization

- Mechanical Engineering:
Courses

English: Graduate Faculty

- English: Programs

- English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

- History: Programs

- History: Courses

Faculty of Human Kinetics:
Graduate Faculty

- Kinesiology: Programs

- Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

- Mathematics and Statistics:
Programs

- Mathematics and Statistics:
Courses

81-552. Curriculum Developments in Mathematics Education

This course will examine recent developments in curriculum, instruction, and evaluation in elementary and secondary mathematics education. Trends will be discussed in light of recent research findings, technological advances, and social goals. International comparisons will be made. (3 hours a week.)

81-553. The Teaching and Learning of Mathematics

This course will examine research into students' learning and the teaching of mathematics. First, the motivational aspects of teaching and learning will be considered, including those related to the topic "Women in Mathematics." Second, specific mathematical topics will be dealt with, selected according to the interests of students. (3 hours a week.)

81-556. Approaches to Literacy Development

This course will consider current research and theory in the development of reading and writing abilities, and will examine some aspects of assessing literacy development. (3 hours a week.)

81-557. The English Language Arts

This course will examine current theories and issues in the English Language Arts with particular focus on their implications for curriculum and practice in the intermediate and senior divisions. Current issues at the local or provincial level, determined by the group, may be examined in detail. (3 hours a week.)

81-558. Psychology of Learning Problems

This course will review current theories of learning disabilities and learning problems. Various approaches to diagnosis and remediation will be presented. Students will be expected to discuss case study examples during the course, and to develop a particular interest area to great depth. (Prerequisite: [81-503](#) or permission of instructor.) (3 hours a week.)

81-572. Theory and Practice in Early Childhood Education

An examination of theory and current practice in Early Childhood Education. The emphasis will be on the translation of theory into sound educational practice. Organization and management of Early Childhood programs will be of concern as well as teaching procedures. (3 hours a week.)

82-529. Theories of Educational Administration

This course will examine current knowledge in educational administration. Theory, research, and the practice of leadership within the educational system will be the main foci. Emphasis will be placed on administrative problems, such as staff development, team building, and motivation. (3 hours a week.)

82-532. Organization and Administration of the School

This course will consider and analyze the many variables impacting upon school administrators as they organize their schools. The effects of administrative theory, past and present, will be considered. A case study approach will be taken to the problems of day-to-day operation. (3 hours a week.)

82-535. Organizational Behaviour in Educational Institutions

A study of theory and research in the socio-behavioral sciences which concerns the behaviour of individuals and groups in educational settings. Attention will be given to the implications of such theory and research for administration in educational institutions. (3 hours a week.)

82-550. Issues in Education

This course will examine current issues affecting contemporary Canadian education.

Faculty of Nursing: Graduate Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

Specific course content and instructors will be published in advance. (3 hours a week.)

82-560. Politics of Education

This course will examine the administration of education from a political perspective. Both the legal and extra-legal factors that influence educational outcomes will be examined. Their roles will be viewed in terms of comparative forms of educational administration. Finally, several administrative decisions will be analyzed using the perspectives gained throughout the course. (3 hours a week.)

82-561. Legal Aspects of Education

This course will focus on legislation and court decisions dealing specifically with the educational process. Both the historical and philosophical basis of these and the practical application of the same in a contemporary setting will form the primary emphasis for the course. (3 hours a week.)

82-562. Educational Finance

This course will be concerned with educational finance in Canada, with particular emphasis on Ontario. It will examine such topics as equity, accountability, efficiency, and adequacy of educational revenues and expenditures. Provincial grant systems will be analyzed within the contexts of political governance and the economics of education. (3 hours a week.)

82-565. Sociological Aspects of Education

This course will examine the school and its occupants and their relationship to the contemporary social order. Analysis of topics such as student culture, learning and social class, roles within the school setting will occur. The focus will be on theoretical positions, representative research findings and representative research methods. (3 hours a week.)

82-566. Interpersonal Relationships in Education

This course will analyze the importance and dynamics of interpersonal behaviour. Students will be given the opportunity to examine and develop their own skills in this area. Emphasis will also be placed upon a practical orientation toward utilizing these skills in the educational environment. (3 hours a week.)

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[Biological Sciences: Graduate](#)

FACULTY OF ENGINEERING: PROGRAMS OF STUDY OVERVIEW

Master of Applied Science (in Civil Engineering, Electrical Engineering, Engineering Materials, Environmental Engineering, Industrial Engineering, or Mechanical Engineering)

Master of Engineering (in Civil Engineering, Electrical Engineering, Engineering Materials, Environmental Engineering, Industrial Engineering, or Mechanical Engineering)

Master of Engineering in Mechanical Engineering (Automotive field) (International Cohort)

Doctor of Philosophy (in Civil Engineering, Electrical Engineering, Engineering Materials, Environmental Engineering, Industrial and Manufacturing Systems Engineering, or Mechanical Engineering)

Ph.D. degrees are offered in Civil Engineering, Electrical Engineering, Engineering Materials, Environmental Engineering, Industrial and Manufacturing Systems Engineering, and Mechanical Engineering. The M.A.Sc. and M.Eng. degrees are offered in Civil Engineering, Electrical Engineering, Environmental Engineering, Engineering Materials, Industrial Engineering, and Mechanical Engineering.

Requirements common to these Programs and supplementary to the general requirements of the Faculty of Graduate Studies and Research are listed below.

The Faculty of Engineering offers a Bachelor's/Master's Integrated Engineering Degree program which allows students with outstanding academic ability to achieve both a B.A.Sc. and M.A.Sc. degree in a time period as short as five years. This program treats the educational process through the B.A.Sc. to the M.A.Sc. degree as a single coherent integrated whole, while ensuring that the requirements for both degrees are fully satisfied. This structured program represents a complementary alternative to the existing separate undergraduate and graduate degree programs.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Areas of Specialization

The areas of specialization are listed by Program.

Admission Requirements

An applicant for admission to a course of graduate studies leading to the Doctor of Philosophy degree in Engineering must normally be a graduate of a recognized university with a Master's degree in Engineering or Applied Science. Applicants with degrees in related fields will be considered but will normally require strengthening of their background in engineering. At the discretion of the Program Graduate Committee, Graduate Record Examinations (GREE) may be required.

All applicants whose native language is not English are required to satisfy the English

Faculty	proficiency requirement as described in 1.3.
• Biological Sciences: Programs	Possession of the minimum requirements does not automatically ensure acceptance.
• Biological Sciences: Courses	<i>Candidacy:</i> Admission to graduate study does not imply admission to candidacy for a degree. The candidacy of a student normally will be determined within the second year after initial registration in the doctoral program.
Odette School of Business: Graduate Faculty	Candidacy will be granted to students who meet all of the following requirements: (a) satisfactory completion of the comprehensive examination; (b) demonstration to the doctoral committee of ability to conduct independent research; (c) acceptance by the doctoral committee of the research proposal.
• Business: Programs	The doctoral committee will assess the student's competence to continue research on the basis of (a), (b) and (c), and make a recommendation to the Chair of the Program Graduate Committee.
• Business: Courses	
Program Requirements	
Chemistry and Biochemistry: Graduate Faculty	The specific minimum program requirements for the Ph.D. include the successful completion of:
• Chemistry and Biochemistry: Programs	1) <i>Course Requirements:</i> Satisfactory completion of at least four courses, comprising a minimum of eight term hours, beyond the courses required for the Master's degree.
• Chemistry and Biochemistry: Courses	2) A comprehensive examination.
Communication Studies: Graduate Faculty	3) Satisfactory progress in research within each review period. The doctoral committee will establish by periodic review, which will include at least one formal seminar a year, that adequate progress in research has been accomplished by the candidate. The doctoral committee will also grant permission to write the dissertation when it decides the candidate has achieved sufficient competence in carrying out research, and when the candidate has done substantial research.
• Communications Studies: Programs	4) A dissertation on the research. Each candidate will be required to make an oral presentation of the dissertation research and will be examined orally on the subject of the dissertation and related fields.
• Communication Studies: Courses	<i>Residence and Time Limits:</i> Every student will undertake a full program of study for a minimum of three years beyond the Baccalaureate of Engineering or its equivalent. Credit for one of these years may be given for the time spent in proceeding to a Master's degree. Credit for one of these years may also be given for work done at another institution. However, in no case shall the student spend fewer than two of the three required years of residence in full-time attendance at the University of Windsor.
Computer Science: Graduate Faculty	A student admitted to a Ph.D. program requiring the student's attendance for a minimum of three years must complete all requirements within seven years. Students admitted to a program requiring a minimum of two years' residence must complete all requirements within six years.
• Computer Science: Programs	
• Computer Science: Courses	
Earth Sciences: Graduate Faculty	<i>Committees:</i> Research undertaken as part of a doctoral program is normally directed and supervised by a doctoral committee. Whereas the student's advisor provides day-to-day guidance and direction, the committee is ultimately responsible for the overall supervision to ensure that adequate progress is being maintained. The doctoral committee will consist of at least four members, with the student's advisor as chairperson. The advisor must be a member of graduate faculty. At least one member shall be from a program area within the University of Windsor other than the one in which the student is majoring.
• Earth Sciences: Programs	
• Earth Sciences: Courses	

The student's advisor will propose the names of members for the doctoral committee,

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

and these will be subject to the approval of the Program Graduate Committee and the Executive Committee of the Faculty of Graduate Studies and Research. Within one month after initial registration, each student will be assigned to a doctoral committee.

The final appraisal of the dissertation and the conduct of the final oral examination of the dissertation will be carried out by an examining committee. The examining committee will consist of the doctoral committee, the Dean of Graduate Studies and Research or designate as chairperson (non-voting), and an external examiner.

Examinations: At the discretion of the doctoral committee a qualifying examination may be required. A qualifying examination is one in which the student is asked to demonstrate a reasonable mastery of the fundamentals in the major subject; it is designed to test the student's preparation for advanced graduate work. If such an examination is required, it must be administered and passed before the student registers for the second year of Ph.D. work.

In addition to the usual examinations on course work, all students must meet the following requirements:

1) Review of Progress on Research: Within the first year, the student will present in the form of a seminar an outline of his or her proposed thesis research. This will be presented to the doctoral committee who must approve, with or without modifications, or reject the proposal. Thereafter, at least once a year the student will report his or her progress in the form of a seminar.

2) Comprehensive Examination: Students who have previously obtained a Master's degree must attempt this examination within twelve months of registering for the Ph.D. program. Other students must take it within twenty-four months of registration for the Ph.D. program. This set of examinations requires the students to demonstrate an adequate background in the general discipline of engineering, and an advanced knowledge in their fields of specialization. The comprehensive examination will be conducted by a program comprehensive committee in one or two sections at the discretion of the Program Graduate Committee:

(a) a scheduled, supervised written portion, of at least three hours' duration, designed to test the student's general knowledge on core subjects in the field of study, with questions set and answers evaluated by the program comprehensive committee;

(b) an oral examination to be evaluated by the program comprehensive committee. The objective of this part of the examination is to test the student's ability to integrate general knowledge from different areas of the field of study in order to solve problems the student has not previously encountered.

The student's overall success in the comprehensive examination will be determined by the program comprehensive committee. If the student is unsuccessful, the committee may require:

(a) that the student repeat all or part of the comprehensive examination at a specified time,

(b) that the student take and pass remedial coursework before repeating all or part of the examination, or

(c) after consultation with and approval by the doctoral committee, that the student withdraw from the program.

3) *Final Examination:* The passing of the final oral examination of the dissertation requires both an adequate dissertation and a satisfactory defense of the dissertation. This examination will be conducted by the examining committee. Following the acceptance and provisional approval of the dissertation by the doctoral committee, and a satisfactory preliminary report from the external examiner, a date for the oral examination can be set. Except under very unusual circumstances, the external

- **IMSE: Courses**

**Mechanical Engineering:
Graduate Faculty**

- **Mechanical Engineering:
Areas of Specialization**

- **Mechanical Engineering:
Courses**

English: Graduate Faculty

- **English: Programs**

- **English: Courses**

**Environmental Science
(GLIER): Graduate Faculty**

ES: Programs

ES: Courses

History: Graduate Faculty

- **History: Programs**

- **History: Courses**

**Faculty of Human Kinetics:
Graduate Faculty**

- **Kinesiology: Programs**

- **Kinesiology: Courses**

**Mathematics and Statistics:
Graduate Faculty**

- **Mathematics and Statistics:
Programs**

- **Mathematics and Statistics:
Courses**

examiner must be present at the oral examination. If the examining committee cannot arrive at a unanimous decision to award a passing grade, the majority decision will be accepted provided that there is no more than one dissenting vote. However, if the dissenting vote is that of the external examiner, a new external examiner may be appointed and another oral examination will be required. If the new examiner also gives a dissenting vote, the dissertation will not be accepted.

THE DEGREE OF MASTER OF APPLIED SCIENCE

Areas of Specialization

The areas of specialization are listed by Program.

Admission Requirements

A candidate for the degree of Master of Applied Science shall hold the degree of Bachelor of Applied Science from this University or an equivalent degree in Engineering or Applied Science. In addition, the applicant must have at least second-class standing or its equivalent in the final year and be recommended by the Program Graduate Committee in which the candidate plans to undertake studies.

Applicants with degrees in related fields will be considered but will normally require strengthening of their background in Engineering. At the discretion of the Program, the Graduate Record Examination (GRE) may be required.

All applicants whose native language is not English are required to satisfy the English proficiency requirement as described in 1.3.

Possession of the minimum requirements does not automatically ensure acceptance.

Degree Requirements

The specific minimum program requirements for the M.A.Sc. include the successful completion of:

1) *Course Requirements*: Satisfactory completion of courses comprising between twelve and twenty-four term hours, depending on the term hour equivalence assigned to the mandatory thesis or major paper. A thesis may be equivalent to as many as eighteen term hours, and a major paper to as many as six term hours of the total minimum requirement of thirty term hours.

2) Either a thesis or a major paper as specified below:

(a) *Thesis*: A thesis incorporating the results of an original investigation is required of all candidates except those students who are doing non-thesis research toward a major paper. Before writing the thesis the student must meet with the Master's committee to obtain permission to write the thesis. The Master's committee will grant this permission when the student has shown sufficient competence and has accomplished substantial research. After completion of the thesis, each candidate will be required to make a satisfactory oral presentation and defense of the thesis as described below.

(b) *Major Paper*: For those candidates doing non-thesis research, a major paper is required. The topic of the major paper is normally research based on the existing literature in the field of study. The candidate will be required to make an acceptable oral presentation to the Master's committee based on the major paper (see below).

3) Mechanical Engineering students must take [92-595](#) (Graduate Seminar)

Residence and Time Limits: The minimum period of study for a Master's candidate is twelve months. The maximum duration of full-time study as a Master's candidate is

Faculty of Nursing: Graduate Faculty

- Nursing: Programs
- Nursing: Courses

three years. Part-time Master's candidates will undertake the equivalent of a minimum of one year of full-time study. For a part-time Master's candidate the maximum time limit generally will not exceed five calendar years. Master's candidates who expect to require an extension of these time limits must petition the Dean of Graduate Studies and Research, giving reasons for the request and plans for completion of the work. The Chair of the Program Graduate Committee will then make a recommendation to the Dean of Graduate Studies and Research.

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Committees: Research undertaken as part of a Master's program is normally directed and supervised by a Master's committee. Whereas the student's advisor provides day-to-day guidance and direction, the committee is ultimately responsible for the overall supervision to ensure that adequate progress is maintained. The Master's committee will consist of at least three members with the student's advisor as chairperson. The advisor must be a member of graduate faculty.

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

At least one member shall be from a Program within the University of Windsor other than the one in which the student is majoring. The student's advisor will propose the names of the Master's committee and these will be subject to the approval of the Program Graduate Committee and the Executive Committee of the Faculty of Graduate Studies and Research. Within one month after registration, each student will be assigned to a Master's committee.

Political Science: Graduate Faculty

- Political Science: Programs
- Political Science: Courses

The final appraisal of the thesis and the conduct of the final oral examination of the dissertation will be carried out by the examining committee. The examining committee will consist of the Master's committee and the Chair of the Program Graduate Committee or designate of the Dean of Graduate Studies and Research as chairperson (non-voting).

Examinations: At the discretion of the Program Graduate Committee a qualifying examination may be required. A qualifying examination is one in which the student is asked to demonstrate a reasonable mastery of the fundamentals in the major subject; it is designed to test the student's preparation for advanced graduate work. If such an examination is required, it must be administered and passed before the student registers for the final candidate year of Master's work.

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

In addition to the usual examination on course work, all students must meet the following requirements:

1) *Review of Progress on Research or Major Paper:* Within the first year a full-time student will present in the form of a seminar an outline of his or her proposed thesis research or outline the content of his or her major paper. This will be presented to the Master's committee, who must approve, with or without modifications, or reject the proposal. Thereafter, at least once a year, the student will report his or her progress in the form of a seminar.

Social Work: Graduate Faculty

- Social Work: Programs
- Social Work: Courses

2) *Final Examinations:* The passing of the final oral examination on the thesis (or the major paper) requires both an adequate thesis (or major paper) and a satisfactory defense. The examination will be conducted by the examining committee and the thesis defence will be chaired by the Chair of the Program Graduate Committee or appointed designate. If the examining committee cannot arrive at a unanimous decision to award a passing grade, a majority decision will be accepted provided there is no more than one dissenting vote. If there is more than one dissenting vote, the student may be required to carry out additional work if the thesis is judged to be adequate in all other respects, or the student may be required to withdraw.

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Grading: The grading system is outlined in "[Faculty Regulations](#)".

Visual Arts: Graduate Faculty

The Faculty of Engineering requires that students maintain at least a B average at all times.

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Courses in which a grade of B- or higher is received will be accepted for graduate credit. In addition, upon the positive recommendation of the Chair of the Program Graduate Committee and advisor concerned, credit may be granted by the Faculty of Graduate Studies and Research for not more than two term courses in which a grade of C or C+ has been obtained.

If a student fails to obtain credit in a course, the course may be repeated only once, at the discretion of the Chair of the Program Graduate Committee concerned and the Dean of Graduate Studies and Research. No student may repeat, or replace with another course, more than two term courses in which credit was not obtained.

All research work for which a letter grade is assigned must be graded B- or better to receive credit.

Make-up courses will not count for graduate credit. Make-up courses are those courses required to compensate for deficiencies in the student's academic background.

In exceptional cases, at the discretion of the Chair of the Program Graduate Committee and the advisor, a graduate student may take one undergraduate course for credit.

THE DEGREE OF MASTER OF ENGINEERING

Admission Requirements

A candidate for the degree of Master of Engineering shall hold the degree of Bachelor of Applied Science from this University or an equivalent degree in Engineering or Applied Science from another University. In addition, the applicant must have at least second-class standing or its equivalent in the final year and be recommended by the Program Graduate Committee in which the candidate plans to undertake studies. Applicant qualifications will be assessed through a Prior Learning Assessment Committee, if necessary, set up for this purpose by the Dean of Engineering or his/her designate in consultation with the Dean of Graduate Studies and Research.

Applicants with degrees in related fields may be considered but will normally require strengthening of their background in Engineering. At the discretion of the AAU's relevant Graduate Studies Committee, the Graduate Record Examination (GREE) may be required. In such instances, rules outlined in the section on [application procedures](#) of the calendar shall apply.

All applicants whose native language is not English are required to satisfy the English proficiency requirement.

Applicants who can demonstrate relevant post-Baccalaureate engineering employment experience may be given preference during the admission process.

Possession of the minimum requirements does not automatically ensure acceptance into the program.

It is not anticipated that students with an M.Eng. Degree will seek admission into our Ph.D. programs. However, if they do, the Prior Learning Assessment Committee will determine what extra credits will be required for admission into the Ph.D. program. Students will not be allowed to take both degrees, M.Eng. and M.A.Sc., concurrently. Courses counted for one degree cannot be credited towards the other, although students may apply for permission to transfer between the two masters programs, provided they meet the admission requirement of the new program.

Degree Requirements

The M.Eng. consists of a total of 10 (ten) graduate level courses (equivalent to a minimum of 30 credits). The distribution of these courses will be as follows:

- 1) A minimum of 5 (five) courses, equivalent to 15 credits, from the list of graduate courses in the specific program.
- 2) No less than 2 (two) courses, equivalent to at least 6 credits, from other engineering programs.
- 3) Up to 3 (three) courses may be selected from any graduate program within the university with the approval of the programs involved.

One of the 5 courses from the specific program will have one or two short projects (case studies) requiring literature search, report writing and presentations. Each student in the program should obtain approval from the Program's Graduate Coordinator regarding the planned program of study.

**THE DEGREE OF MASTER OF ENGINEERING - Mechanical Engineering
(Automotive field) (International Cohort)**

[For more information on this program contact the Centre for Executive Education at www.uwindsor.ca/execed.]

Admission Requirements

A candidate for the degree of Master of Engineering shall hold the degree of Bachelor of Applied Science from this University or an equivalent degree in Engineering or Applied Science from another University. In addition, the applicant must have at least a B standing or its equivalent in the final year and be recommended by the Program Graduate Committee in which the candidate plans to undertake studies. Applicant qualifications will be assessed through a Prior Learning Assessment Committee, if necessary, set up for this purpose by the Dean of Engineering or his/her designate in consultation with the Dean of Graduate Studies and Research.

Applicants with degrees in related fields may be considered but will normally require strengthening of their background in Engineering. At the discretion of the AAU's relevant Graduate Studies Committee, the Graduate Record Examination (GREE) may be required. In such instances, rules outlined in the section on [application procedures](#) of the calendar shall apply.

All applicants whose native language is not English are required to satisfy the English proficiency requirement. In addition, applicants will need to complete a successful interview with a representative from the program.

Applicants who can demonstrate relevant post-Baccalaureate engineering employment experience may be given preference during the admission process.

Possession of the minimum requirements does not automatically ensure acceptance into the program.

Degree Requirements

All required courses are offered by through the Centre for Executive Education. In this program students will follow a prescribed sequence of courses in cohort fashion, with no electives. In addition, the academic program itself will be preceded by an intensive 6-8 week program of English language instruction and introductory courses to Canadian culture and business practices.

Program Sequencing

Pre-program: Intensive ESL instruction and orientation to Canadian culture and business practices.

Term 1

Two mandatory courses:

85-508. Fundamentals of Clean Engine Technology

85-510. Vehicle Dynamics

plus,

Two additional courses from the following list as determined by the Faculty of Engineering and the Centre for Executive Education, and made available for the term:

85-501. Design & Analysis of Engineering Experiments

85-502. Sustainability: Principles & Practices

85-503. Advanced Operations Research 1

85-504. Engineering Design, Methodology & Applications

85-505. Product Innovation & Design Management

85-506. Tribology: Materials & Manufacturing Aspects

85-507. Turbulent Reacting Flows

85-509. Introduction to Finite Element Analysis

85-511. Bluff Body Aerodynamics

85-512. Managing Employees

Term 2

Three mandatory courses:

85-525. Automotive Applications for Noise, Vibration & Harshness Evaluation

85-526. Aftertreatment & IC Engine Modeling

85-529. Automotive Paint and Industrial Coatings

plus,

One additional course from the following list as determined by the Faculty of Engineering and the Centre for Executive Education, and made available for the term:

85-521. Air Pollution from Mobile Sources

85-522. Advanced Topics in MEMS

85-523. Manufacturing Systems Simulation

85-524. Corrosion Principles & Prevention

85-527. Automotive Heat Exchange Design

85-528. Heat Transfer & Fluid Flow in Microchannels

85-514. Management Information Systems

Term 3

One mandatory course:

85-533. Automotive Sensor Systems

plus,

Two additional courses from the following list as determined by the Faculty of Engineering and the Centre for Executive Education, and made available for the term:

85-531. Introduction to Micro Fuel Cells

85-532. Active Vision Systems

85-534. Flexible Manufacturing Systems

85-519. Linear Systems in Mechanics

85-536. Casting: Modeling & Simulation

85-537. Metal Casting Technology

85-538. Finite Element Methods for Crash-worthiness & Impact Analysis

85-500. Special Topics in Automotive Engineering

85-591. Engineering Venture Formation

RESEARCH IN OUTSIDE INSTITUTIONS

Research for the Ph.D. or M.A.Sc. degree, in part or in whole, may be carried out in an

outside institution (e.g., industrial, governmental, or academic university). A student who does research at an outside institution must fulfil the same requirements as a student doing on-campus research. The only exception is that the time spent doing the off-campus research relevant to the thesis or dissertation will be credited toward the residence requirement. In addition to the general requirements, a student applying for permission to do research at an outside institution must provide:

- 1) A detailed statement of the research proposal, including arrangements for supervision, and of the circumstances under which the research is to be carried out;
- 2) Evidence that the institution has adequate facilities for the research; and that the applicant will be able to pursue independent research;
- 3) A proposed time schedule;
- 4) A letter of support from a responsible person in the outside institution giving approval of the proposal and accepting these regulations.



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CIVIL AND ENVIRONMENTAL ENGINEERING

GRADUATE FACULTY

Professors Emeriti

McCorquodale, John Alexander; B.E.Sc. (Western Ontario), M.Sc. (Glasgow), Ph.D. (Windsor), F.C.S.C.E., P.Eng.-1966.

Abdel-Sayed, George; B.Sc., M.Sc. (Cairo), Dr.Ing. (T. U. Karlsruhe), F.C.S.C.E., P.Eng.-1967.

Madugula, Murty K. S.; B.E. (Hons.), M. Tech., Ph.D. (I.I.T., Kharagpur), P.Eng.-1979.

University Professors

Kennedy, John B.; B.Sc. (Hons.) (Cardiff), Ph.D. (Toronto), D.Sc. (Wales), F.A.S.C.E., F.C.S.C.E., P.Eng.-1963.

Bewtra, Jatinder K.; B.E. (Roorkee), M.S., Ph.D. (Iowa), P.Eng.-1968.

Biswas, Nihar; B.E. (Calcutta), M.A.Sc., Ph.D. (Ottawa), P.Eng.-1981.

Professors

Asfour, Abdul-Fattah Aly; B.Sc. (Hons.), M.A.Sc. (Alexandria), Ph.D. (Waterloo), P.Eng.-1981.

Budkowska, Bozena Barbara; B.A.Sc., M.A.Sc., Ph.D. (Gdansk), P.Eng.-1989.

Balachandar, Ram; B.E. (Madras), Ph.D. (Concordia), P.Eng.-2003.

Associate Professors

Henshaw, Paul; B.Sc., B.Eng.Sc. (Western Ontario), M.A.Sc., Ph.D. (Windsor), P.Eng.-1997. (Graduate Coordinator for Environmental Engineering)

Hearn, Nataliya; B.A.Sc. (Toronto), Ph.D. (Cambridge), P.Eng.-1999.

Ghrib, Faouzi; B.Sc. (Tunis), M.Sc., Ph.D. (Ecole Polytechnique), P.Eng.-1999. (Graduate Coordinator for Civil Engineering)

Lalman, Jerald; B. Sc., B.A.Sc., M.Eng., Ph.D. (Toronto), P.Eng.-2003. (Undergraduate Program Coordinator)

Assistant Professors

Tam, Edwin K. L.; B.Sc., M.Sc. (Alberta), Ph.D. (Toronto)-2001.

Seth, Rajesh; B.E. (Govt. Engin. College, Jabalpur), M.Tech. (Indian Inst. Of

Faculty

• Biological Sciences: Programs

Technology), Ph.D. (Toronto), P.Eng.-2002.

Xu, Xiaohong; B.E. (Beijing Sci. & Tech. Univ.), M.Sc. (China Agric. Univ.), M.Sc., Ph.D. (Connecticut), P.Eng.-2002.

• Biological Sciences: Courses

Carriveau, E. (Rupp); B.A.Sc. (Windsor), M.A.Sc., Ph.D. (Western Ontario), P.Eng.-2004.

Odette School of Business: Graduate Faculty

Das, Sreekanta; B.Sc. (Calcutta), M.Sc. (Wollongong, Australia), Ph.D. (Alberta), P.Eng.-2004.

• Business: Programs

Cheng, Shaohong; B.Eng., M.Eng. (Tongji, China), Ph.D. (Carleton)-2005.

• Business: Courses

Adjunct Associate Professors

Jasim, Saad Y.; Ph.D. (Wales), P.Eng.-1994.

Chemistry and Biochemistry: Graduate Faculty

Adjunct Assistant Professor

• Chemistry and Biochemistry: Programs

Bolissetti, Tirupati; B.E. (Andhra, India), M.Tech. (I.I.T., Kanpur, India), Ph.D. (Windsor), E.I. T. (Ontario)-2006

• Chemistry and Biochemistry: Courses

Carpenter, Donald; B.S. (Purdue), M.S. (Oregon State), Ph. D. (Michigan) - 2006

Li, Jian; B.S. (Wuhan, China), M.S. (Tongji, China), Ph. D. (Meiji, Japan), P.Eng. (Ontario), PE (Michigan)-2006

Adjunct Professor

Communication Studies: Graduate Faculty

Tsui, Stephen H.; B.Sc.(Chu Hai, Hong Kong), M.Eng. (Carleton), C. Eng., M.I. Struct.E., P. Eng.-1982

• Communications Studies: Programs

Cross-Appointment

• Communciation Studies: Courses

Taylor, Keith E.; B.Sc., Ph.D. (Toronto)-1976.

11.2 Areas Of Specialization

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

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[Environmental Science
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- [Kinesiology: Programs](#)

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[Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

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Sociology: Graduate Faculty

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Areas Of Specialization

Civil and Environmental Engineering offers programs of graduate studies and research leading to the degrees of Doctor of Philosophy, Master of Applied Science and Master of Engineering. The Ph.D., M.A.Sc. and M.Eng degrees may be obtained in either Environmental Engineering or Civil Engineering. Within Civil Engineering, the available fields are Structural Engineering and Water Resources Engineering. In the Environmental Engineering program, research focuses on air and water quality and modeling, wastewater and industrial waste treatment, and ground water contamination. In the Water Resources field, research is in hydraulics, hydrology, and hydrogeology. In the Structures field, research encompasses ACM, structural dynamics, fatigue damage assessment, steel, concrete technology, soil mechanics, and foundations.

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Programs

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Courses

Odette School of Business:
Graduate Faculty

- Business: Programs

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Chemistry and Biochemistry:
Graduate Faculty

- Chemistry and Biochemistry:
Programs

- Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

- Communications Studies:
Programs

- Communciation Studies:
Courses

Computer Science: Graduate
Faculty

- Computer Science:
Programs

- Computer Science: Courses

Earth Sciences: Graduate
Faculty

- Earth Sciences: Programs

- Earth Sciences: Courses

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

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- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

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Faculty of Nursing: Graduate
Faculty

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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

- Physics: Programs
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Political Science: Graduate
Faculty

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Psychology: Graduate Faculty

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Social Work: Graduate
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Sociology: Graduate Faculty

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CIVIL ENGINEERING

Courses offered by Civil Engineering at the graduate level are listed below. Students may take courses other than Civil Engineering with permission of the Head of the Department and the advisor.

All courses listed will not necessarily be offered in any given year.

87-500. Theor of Elasticity and Plasticity

Analysis of stress and strain; elastic and plastic stress-strain relations; general equations of elasticity; yield criteria; applications to elastoplastic problems, including rotating disks, thick-walled tubes, reinforced disks, torsion of various shaped bars; stress concentration. (3 lecture hours a week.)

87-501. Finite Element Methods for Solids and Structures

Structural idealization; stress analysis of 2-D and 3-D solids; error estimation and mesh adaptivity; elastic formulations and uses of beam, plate and shell elements; nonlinear formulations; structural stability; introduction to finite element methods in structural design optimization. (3 lecture hours a week.)

87-502. Analysis and Design of Shell Structures

General theory of thin shells. Membrane stresses in shells of revolution and shells of double curvature. Bending stresses in shells of revolution, cylindrical shells and folded plates. Design of cylindrical shell roofs. (Prerequisite: [87-500](#) or equivalent.) (3 lecture hours a week.)

87-504. Theor of Plates

Small deflection of laterally loaded rectangular and circular, isotropic and orthotropic plates with various edge conditions, Navier and Levy solutions, energy methods, finite difference approximation, plates under combined action of lateral loading and forces in its plane, local buckling of column elements, buckling of plates under pure shear and under bending stresses, post-buckling strength in plates. (3 lecture hours a week.)

87-505. Theor of Stability

This course is designed to give an insight into the basic phenomenon of structural stability. Elastic and plastic flexural-buckling of columns with axial and eccentric loads is studied. Energy and numerical methods are used. Stability functions are introduced and used to study trusses and rectangular frames, with and without sidesway. Some discussion of torsional and torsional-flexural buckling, lateral buckling of beams. (3 lecture hours a week.)

87-506. Advanced Structural Steel Design

This course is designed to develop and expand the design concepts in steel structures; multiple-storey frames, sway and non-sway frame systems; beam-columns; laterally unbraced beams; local buckling of flanges and webs; plate girders; plastic analysis and design; characteristics of light gauge steel components; design of cold-formed steel structures. (3 lecture hours a week.)

Faculty

• Biological Sciences:
Programs

• Biological Sciences:
Courses

Odette School of Business:
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Chemistry and Biochemistry:
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Programs

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Communication Studies:
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• Communication Studies:
Courses

Computer Science: Graduate
Faculty

• Computer Science:
Programs

• Computer Science: Courses

Earth Sciences: Graduate
Faculty

• Earth Sciences: Programs

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87-510. einforced oncrete tructures

Critical examination of design code requirements for: flexure, shear, bond, eccentrically loaded columns; yield line theory, strip method, and design of slabs. Design of hyperbolic paraboloid shells, domes, cylindrical tanks and rigid-frame structures. (3 lecture hours a week.)

87-511. restressed oncrete

Materials, principles of prestressing systems; prestressing losses; analytical treatment of the effect of shrinkage, creep of concrete, and cable friction on stresses; analysis and design of statically determinate and indeterminate structures; design codes; research background; introduction to prefabricated concrete structures. (3 lecture hours a week.)

87-512. Design Deterioration and epair of oncrete

Cementing materials-basic constituents and manufacture; hydration of cement; physical properties of fresh and hardened paste; concrete mix design; properties of fresh and hardened concrete; deterioration processes affecting field concrete; inspection, assessment and remedial techniques of concrete and reinforced concrete structures. (3 lecture hours a week.)

87-513. tructural D namics

Formulation of equations of motion; single degree-of-freedom systems: free vibration response and response to harmonic, periodic, impulse, and general dynamic loading; analysis of non-linear structural response; multi degree-of-freedom systems: equations of motion, structural property matrices, undamped free vibration, Raleigh's method, forced vibration response, practical vibration analysis; continuous systems: partial differential equations of motion, analysis of undamped free vibration, analysis of dynamic response, wave propagation analysis. (3 lecture hours a week.)

87-514. Ad anced oncrete echnolog

Advanced composite materials - constituents and products; structural applications, reinforced concrete members, prestressed concrete members, applications with chopped fibres, repair and rehabilitation; innovative applications. (3 lecture hours a week.)

87-515. arth ua e-resistant Design of uildings

Formulation of the equations of motion, free vibration response, and forced vibration response of SDOF, MDOF and continuous systems; approximate and numerical methods of analysis; wave propagation analysis. (3 lecture hours a week.)

87-516. oads and oad ffects on tructures

Nature of loads; stress analysis of structures for volumetric deformations; modal analysis of structures; vibration-induced forces in structures; time-domain and frequency-domain analysis of structures; fatigue damage calculation of solids. (3 lecture hours a week.)

87-51 .Ad ances in oil Mechanics and eotechnical engineering

Consolidation and improvement methods; compressibility of soils and application of new modification techniques; frost action in soils; design of gravity, cantilever and mechanically stabilized retaining walls; recent advances in the bearing capacity of foundations on reinforced soils; pile foundations and pile groups; machine foundations on piles. (3 lecture hours a week.)

87-520. Multiphase Multicomponent Flows

A thorough treatment of the basic techniques for analyzing one-dimensional multi-phase, multicomponent flows in order to predict flow regimes, pressure drop, etc. Practical applications in fluidization, sedimentation and boiling heat transfer. (3 lecture hours a week.)

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

87-521. Hydrology

Analysis and synthesis of the hydrograph. Streamflow routing. The hydrograph as a function of drainage characteristics; estimation of runoff from meteorological data. Snowmelt. Flow in rivers with an ice cover. Infiltration theory. Sea water intrusion in coastal aquifers. Application of hydrologic techniques including statistical methods. (3 lecture hours a week.)

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

87-522. Fluid Mechanics

Theory and analysis of uniform, gradually varied, rapidly varied and steady and unsteady flow in open channels; fluvial processes; design of channels; design of hydraulic control structures. (3 lecture hours a week.)

87-523. Groundwater Contamination

Introduction of Darcy's equation and governing equation; construction of flownets, flow quantification, and ground water resource evaluation; contaminant hydrogeology, mass transport equations, reaction, and adsorption; introduction to biodegradation and natural attenuation; simulation of ground water flow and transport. (3 lecture hours a week.)

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

87-524. Advanced Fluid Mechanics

Properties of scalar and vector fields; gradient, divergence and curl. Flow visualization. Flow kinematics: continuity equation, potential flow, stream function. Flow dynamics: transport theorems, integral and differential equations of motion. Boundary-layer theory. Turbulent flow and turbulence models. (3 lecture hours a week.)

87-525. Hydraulic Analyses

This course deals with advanced methods of analyzing hydraulics and water resource systems. Exact and approximate methods are reviewed. The formulation and solution of problems by finite difference and finite element methods is a major part of the course. Typical examples from open channel and ground water flows are included. The method of characteristics is applied to transient flow in open channels and closed conduits. (3 lecture hours a week.)

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

87-526. Sediment Transport

Regime approach; turbulence theories; suspended sediment; tractive force method; bedforms and bedload transport; the Einstein method; modified Einstein method; reservoir siltation; recent developments; design of mobile bed channels; design of sedimentation basins; channel degradation. (3 lecture hours a week.)

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

87-527. Coastal Engineering

Introduction to linear and nonlinear wave theory. Wave transformation: shoaling, refraction, diffraction, reflection and breaking. Wave interaction with piles, walls and rubble mounds. Computation of forces and moments. Stability analysis. Wave generation and prediction. Computation of design water levels. Statistical nature of wind-generated waves in deep and shallow waters. Littoral zone processes. Computation of longshore transport. Effect of shore structures on littoral processes. Design of shore protections. Design of small harbours. This course involves the use of microcomputers and physical models. (3 lecture hours a week.)

87-528. Special Topics in Civil Engineering

Selected advanced topics in the field of civil engineering. (3 lecture hours a week.)

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

87-706. Major Paper

87-707. Thesis

87-708. Dissertation

- IMSE: Courses

Mechanical Engineering:
Graduate Faculty

- Mechanical Engineering:
Areas of Specialization

- Mechanical Engineering:
Courses

English: Graduate Faculty

- English: Programs

- English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

- History: Programs

- History: Courses

Faculty of Human Kinetics:
Graduate Faculty

- Kinesiology: Programs

- Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

- Mathematics and Statistics:
Programs

- Mathematics and Statistics:
Courses

ENVIRONMENTAL ENGINEERING

Courses offered by Environmental Engineering at the graduate level are listed below. Students may take courses other than Environmental Engineering with permission of the Head of the Department and the advisor.

All courses listed will not necessarily be offered in any given year.

3-530. ater ollution ontrol

Water quality criteria; methods of wastewater disposal and their effects on ecology; theory and design of different unit operations and processes for water purification; theory and design of different design operations and processes of wastewater treatment; reuse and recycling of wastewater. (3 lecture hours a week.)

3-531. Ad anced ater ollution ontrol

Discussion on recent advances in the design of water and wastewater treatment plants and new developments in water pollution control practices. (Prerequisite: [93-530](#) or equivalent.) (3 lecture hours a week.)

3-533. olid aste Management

A study of municipal and industrial solid wastes, quantities, composition, methods of disposal or reclamation; economic viability of the various methods related to the quantities involved. (3 lecture hours a week.)

3-534. n ironmental eparation rocesses

Application of the principles of surface chemistry to separation processes involving phase equilibria, ion exchange, membrane separation, adsorption, absorption, flocculation, spherical agglomeration, sedimentation, filtration, and centrifugation. (3 lecture hours a week.)

3-535. ater ualit Management

Water quality criteria; methods of wastewater disposal and their effects on ecology; stoichiometry, reaction kinetics and material balance; movement of contaminants in water bodies; modelling of water quality in natural systems. (3 lecture hours a week.)

3-536. n ironmental ngineering hermod namics

An advanced study of the application of classical thermodynamic principles to environmental engineering practice; flow systems; composition relationships between equilibrium phases; systems involving surface effects, electric or magnetic fields. (3 lecture hours a week.)

3-537. inetics

Basic concepts of chemical reaction kinetics; characterization of chemical and biochemical systems; reactor flow models and consideration of non-ideality. (3 lecture hours a week.)

3-538. iological reatment of astewater

Wastewater characteristics; biological kinetics; flow and loading variation; wastewater treatment processes; mass balances; aeration; sedimentation; lagoons; fixed-film processes; sludge characteristics. (3 lecture hours a week.)

3-53 . ndustrial astewater reatment

Sources and characteristics of industrial wastewater; pretreatment and primary treatment; physical and chemical treatment; biological treatment; waste minimization; treatment of wastes from various industries. (3 lecture hours a week.)

3-540. umerical Modeling of eat and Mass ransfer and Flow in orous Media

Introduction to finite difference and finite element approaches for simulation of the

Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

diffusion and the advection-dispersion equations; development of finite difference formulation of 1-D and 2-D transient heat transfer, nonlinear conductance and source/sinks; 1-D and 2-D mass transport with reaction; 1-D and 2-D heat transfer with finite element approach. (3 lecture hours a week.)

3-541. Air Pollution from Mobile Sources

Air pollutants; emissions from vehicles; testing vehicles for emissions; combustion thermodynamics; thermodynamics and kinetics of pollutant formation; measures to reduce emissions; modeling. (3 lecture hours a week.)

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

3-542. Air Pollution Modelling

Air quality standards; emission inventory, source estimation; development of transport models; models with chemical reactions. (3 lecture hours a week.)

3-550. Sustainability: Principles and Practices

This course examines the evaluation, design, and management of products, processes, or projects to achieve sustainability. The main topics include: assessing and scoping environmental effects from engineering and other technical activities; eco-balance approaches; life cycle assessment; design-for-environment principles; and decision making for environmental and sustainability objectives. The course will discuss typical examples (e.g., automobiles, infrastructure, electronics), and also draw upon the industrial and research experience and knowledge of the class attendees. Class-based projects will focus on understanding, interpreting, and implementing the knowledge acquired. (Not open to students who attended [93-532](#), Engineering and the Environment, since 2002.) (3 lecture hours per week.)

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

3-500. Special Topics in Environmental Engineering

Selected advanced topics in the field of environmental engineering. (3 hours a week.)

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Current topics include:

Air Pollution Control;

Transport Phenomena;

Environmental Law and Policy

Atmospheric Chemistry and Physics of Air Pollution.

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

3-76. Major Paper

3-77. Thesis

3-78. Dissertation

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

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GRADUATE FACULTY

Professor Emeritus

Miller, William C.; B.S.E. (Michigan), M.A.Sc., Ph.D. (Waterloo), P.Eng.-1968.

Hackam, Reuben; B.Sc. (Technion, Israel), Ph.D., D.Eng. (Liverpool), F.I.E.E.E., P. Eng.-1978.

Raju, G.R. Govinda; B.E. (Mysore), Ph.D. (Liverpool), F.I.E., P. Eng.-1980.

University Professor

Ahmadi, Majid; B.Sc. (Tehran), D.I.C., Ph.D. (Imperial College) C.Eng., F.I.E.E.E.-1981.

Professors

Sid-Ahmed, Maher A.; B.Sc. (Alexandria), M.A.Sc., Ph.D. (Windsor), P.Eng.-1978.

Kwan, H.K. Peter; B.Sc. (London), M.Phil. (CUHK), D.I.C., Ph.D. (London), F.I.E.E., C.Eng., P.Eng.-1988.

Erfani, Shervin; B.Sc, M.Sc. (Tehran), M.Sc., Ph.D. (Southern Methodist), C.Eng.-2002.

Associate Professors

Chen, Xiang; B.Sc., M.Sc. (Huazhong Univ. of Science and Tech.), M.Sc., Ph.D. (Louisiana State), P.Eng.-2000.

Chen, Chunhong; B.Sc., M.Sc. (Tianjin), Ph.D. (Fudan, China)-2001.

Abdel-Raheem, Esam; B.Sc., M.Sc. (Ain Shams), Ph.D. (Victoria), S.M.I.E.E.E.-2003.

O'Leary, Stephen K.; B.A.Sc., M.Sc., Ph.D. (Toronto), P.Eng.-2006.

Assistant Professors

Shahrrava, Behnam; B.A.Sc., M.A.Sc. (Tehran), Ph.D. (Waterloo)-1998.

Wu, Huapeng; B.Sc., M.Sc. (USTC, China), Ph.D. (Waterloo)-1999.

Khalid, Mohammed A.S.; B. E. (Osmania), M.S.E.E. (Louisiana State U), Ph.D. (Toronto)-1999.

Kar, Narayan Chandra; B.Sc. (Bangladesh), M.Sc., Ph.D. (Kitami Institute of Technology, Japan)-2000.

Faculty	Tepe, Kemal; B.Sc. (Hacettepe U, Ankara, Turkey), M.Sc., Ph.D. (Rensselaer Polytechnic Institute, Troy)-2000.
• Biological Sciences: Programs	Chowdhury, Sazzadur; B.Sc. (Bangladesh), M.A.Sc., Ph.D. (Windsor)-2003.
• Biological Sciences: Courses	Muscedere, Roberto; B.A.Sc., M.A.Sc., Ph.D. (Windsor), P.Eng.-2003. Wu, Jonathan; B.Sc. (Shandong), M.Sc. (Coventry), Ph.D. (Wales)-2005
Odette School of Business: Graduate Faculty	Adjunct Professor Jullien, Graham A.; B.Tech. (Loughborough), M.Sc. (Birmingham), Ph.D. (Aston), P.Eng.-1969.
• Business: Programs	
• Business: Courses	Cross Appointments Boufama, Boubakeur; Engg. (Constantine), M.Sc. (France), Ph.D. (Grenoble) -1999
Chemistry and Biochemistry: Graduate Faculty	Maev, Roman. G.; B.Sc. (Moscow Physical Engineering Institute), M.Sc. (Moscow Physical Technical University), Ph.D. (Lebedev)- 1995
• Chemistry and Biochemistry: Programs	
• Chemistry and Biochemistry: Courses	
Communication Studies: Graduate Faculty	
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Areas Of Specialization

Electrical Engineering offers graduate programs leading to the degrees of Doctor of Philosophy (Ph.D.), Master of Applied Science (M.A.Sc.) and Master of Engineering (M.Eng.) Research is carried out in the broadly defined area of Signals and Systems.

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Within the area of Signals and Systems such research topics as digital signal processing, microsystems, communications and computers are investigated.

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Physics: Graduate Faculty

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Political Science: Graduate
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Psychology: Graduate Faculty

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Social Work: Graduate
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ELECTRICAL ENGINEERING: COURSE DESCRIPTIONS

The graduate course offerings in Electrical Engineering are designed to complement the areas of specialization. Course requirements for the Ph.D., M.A.Sc., and M.Eng. degrees in Electrical Engineering will be selected from the courses listed below and related courses in other programs.

Graduate students will be associated with one of the areas of research. Their program of studies will be formulated in consultation with the graduate advisors and approved by the Chair of the Program Graduate Committee coordinator.

Only a selected number of the courses listed below will be available each year. The current list will be provided by the Coordinator of Graduate Studies in Electrical Engineering.

Graduate standing is required for all graduate courses in the Department of Electrical and Computer Engineering.

88-514. Advanced Power Systems

Synchronous machine models are developed from the voltage and flux linkage differential equations. Applying the developed models, numerical simulations are performed to determine the dynamic performances of synchronous machines. (3 lecture hours per week.)

88-521. Digital Signal Processing

Discrete Signals, z-transforms, Time Domain and Frequency Domain Analysis of Digital Filters, Design and Realization of FIR and IIR filters, DFT and FFT, Stability and Stabilization of IIR Filters, Discrete Hilbert Transform, Sectioned and Fast Convolution. (3 lecture hours a week.)

88-522. Applied Time Signals Analysis and Processing

Continuous and discrete signals; sampling theory and practice; filtering, interpolation, coding, statistical concepts, transform methods; power density estimation, correlation functions, convolution. (3 lecture hours a week.)

88-523. System Theory

Continuous and discrete time systems, state formulation techniques, controllability and observability concepts, and system simulation. (3 lecture hours a week.)

88-524. Stochastic Processes

Development and applications of probability models in the analysis of stochastic systems; review of probability, random variables and stochastic processes; correlation functions applications to filtering, prediction, estimation and system identification. (3 lecture hours a week.)

88-525. 2-Dimensional Digital Signal Processing

Fundamentals of 2-D Signals and Transforms; Z, Fourier, discrete Fourier, etc., 2-D FFT, Design Techniques for 2-D FIR and IIR Digital Filters using Transformation and Optimization Techniques. Stability and Stabilization of 2-D Filters, Homomorphic Filtering, Reconstruction of Signals from their Projections. (3 lecture hours a week.)

Faculty

• Biological Sciences:
Programs

• Biological Sciences:
Courses

Odette School of Business:
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Chemistry and Biochemistry:
Graduate Faculty

• Chemistry and Biochemistry:
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Communication Studies:
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Courses

Computer Science: Graduate
Faculty

• Computer Science:
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Earth Sciences: Graduate
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88-527. Speech Processing

Production, perception, and acoustic-phonetic characteristics of speech signal; auditory models; linear prediction of speech; cepstral analysis; speech recognition; speech synthesis; spoken language processing; human-computer communications. (3 lecture hours a week.)

88-528. Image Processing

This course presents digital and hybrid representation of images, fundamentals of colour, 2-D systems, 2-D filter design and 2-D filtering of digital images, image enhancement techniques: homomorphic filtering, histogram equalization and modification techniques, median and statistical filtering, 2-D FFT algorithms, properties of digital images. Projects are given as a means of learning practical applications of the field. (3 lecture hours per week.)

88-529. Discrete Transforms and Number Theoretical Methods

Introduction to orthogonal transforms, DFT, DCT, DHT; implementation methods; fast algorithms, FFT, WFT; polynomial transforms; finite rings and fields; number theoretic techniques; residue number systems; conversion and computation; finite polynomial rings; VLSI implementation consideration. (3 lecture hours a week.)

88-531. VLSI Design

Overview of VLSI designs, CAD tools, application, technology; review of properties of silicon, solid state physics and devices; SPICE models; analog simulation; IC technology; target CMOS process; static CMOS logic; principles of standard cell CMOS design; dynamic characteristics of static CMOS logic; dynamic logic; system level considerations; hardware description languages; silicone compilers. (3 lecture hours a week.)

88-533. Computational Intelligence

Models of the human brain and sensory systems. Neural networks and learning algorithms. Fuzzy sets, fuzzy logic, and fuzzy systems. Evolutionary computation. Advanced topics in computational intelligence. (3 lecture hours a week.)

88-535. Nonlinear Systems

Introduction to the analysis and design of nonlinear control systems, mathematical preliminaries, second-order systems (including Lyapunov stability, center manifold theorem, input-output-stability) perturbation theory; control design for non-linear systems. (Prerequisite: For Electrical Students [88-324](#); For Mechanical Students [92-412](#).) (3 lecture hours a week.)

88-536. Automotive Control Systems

Introduction to automotive control systems; engine operation and dynamics; engine management and control; robust engine control; hybrid powertrain modelling and control; estimation of vehicle parameters and models; vehicle control system; automotive electronics. (Prerequisite: For Electrical Students [88-324](#); For Mechanical Students [92-412](#).) (Crosslisted with [92-545](#).) (3 lecture hours a week.)

88-541. Low Power CMOS Design

This course is designed to prepare students for advanced VLSI design where low power dissipation is of critical concern. Topics will include: Introduction to low power techniques for CMOS circuit design; design levels of abstraction; sources of power dissipation, capacitance analysis, and power estimation; simulation-based and probability-based power estimation; low-level and high-level power optimization; advanced techniques for modern IC fabrication, and low power design tools from an industrial perspective; recent advances in low power CMOS design (Prerequisites: [88-217](#) and [88-316](#).) (3 lecture hours per week plus project.)

88-550. Adaptive Signal Processing

This course presents topics on optimum linear filtering (Wiener filter, linear prediction,

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

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Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
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Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

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Specialization

and Kalman filtering), constrained linear estimation, Newton's method, steepest-descent method, stochastic-gradient algorithms: least-mean-squares (LMS) algorithms, affine projection algorithms (APA), recursive least-squares (RLS) algorithms. Comparative performance analysis of adaptive filters: steady state error, tracking error, convergence rate; finite precision effects. The students are introduced to applications on adaptive noise cancellation, interference canceling, and system identification. (3 lecture hours a week.) (Prerequisite: [88-524](#) or equivalent.)

88-551. Advanced Digital Signal Processing

Review of discrete-time systems and digital filters. Multirate systems including decimators, interpolators, polyphase decomposition, Nyquist filters, two-channel, and M-channel filter banks. Adaptive equalization including equalization techniques for digital receivers, linear and non-linear equalizers, adaptive algorithms, and blind equalization. Analysis of finite wordlength effects including coefficient quantization, arithmetic round-off errors, dynamic range scaling, and low-sensitivity digital filter structures. (3 lecture hours a week.) (Prerequisites: [88-524](#) or equivalent, [88-521](#) or equivalent, or permission of the instructor.)

88-552. Advanced Topics in Microelectromechanical Systems (MEMS)

Review of advanced topics related to the theory and modeling of MEMS design and fabrication techniques. Topics to be covered include: advanced micromachining techniques, smart microelectromechanical sensing and actuation techniques, microfluidics, photonic MEMS, advanced materials, device modeling, MEMS design case studies, system integration, micropackaging, MEMS design methodology, and reliability issues related to MEMS devices. Emphasis is on theory, lumped element modeling, 3-D multi-domain finite element analysis, static and dynamic device behavior study using industry standard MEMS modeling tools, simulation of fabrication processes using actual fabrication process parameters, and design verification. (3 lecture hours a week.)

88-553. Analysis of Electrical Machines

This course is concerned with understanding and modeling of induction, reluctance and permanent magnet synchronous generators used in wind power application. In addition, numerical analysis and a review of the basic characteristics used in wind power application. In addition, numerical analysis and a review of the basic characteristics of the above-mentioned electrical machines will be performed. (3 lecture hours a week.) (Prerequisite: [88-313](#) or permission of the instructor.)

88-554. Automotive Sensor Systems

This course describes topics on sensors, optics & lighting, image representation, feature extraction, image analysis, image classification, 3D imaging techniques, GPS, radar, lidar 3D range imaging, intelligent and night vision, sensor integration and fusion. The students will apply their theoretical knowledge to solve a practical problem by completing a course mini-project. (3 lecture hours a week.)

88-555. Computer Arithmetic

This course presents a detailed description of general class of fixed-radix number systems, floating-point representation, algorithms and architectures for sequential and fast computation of multiplication, division and square root extraction, elementary functions, logarithmic and residue number systems, finite field arithmetic operations, error control in arithmetic processors. Course assignments and mini-projects on practical aspects of the course are required. (3 lecture hours a week.)

88-556. Computer Networks

This course will cover concepts and protocols which enable heterogeneous computer networks to work with each other, including transport (TCP, UDP), network (IP, IPng), routing (RIP, OSPF), network management (SNMP, SNMPv2, RMON), and other important protocols like ARP, ICMP, DNS, BOOTP, DHCP and HTTP. Advanced topics like Mobile IP, real-time and reservation protocols (RTP, RSVP), IP multicast (IGMP,

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MBONE) and network security will also be examined. Emphasis will be on broad coverage, as well as hands-on programming experiences. Local area networks, performance of queueing, multiple access schemes, IEEE802 standards, wireless LANs and wireless personal area networks will also be covered. (3 lecture hours a week.)

88-557. Multiuser Detection

This course presents an introduction to multiple-access communication systems: time-division multiple access (TDMA), frequency-division multiple access (FDMA), and code-division multiple access (CDMA); linear receivers for synchronous and asynchronous CDMA systems, blind multiuser detection (direct methods and subspace methods), linear decorrelating and minimum mean-square-error (MMSE) detectors, group-blind multiuser detection in multipath channels, adaptive multiuser detection, space-time multiuser detection, and turbo multiuser detection. Practical applications are demonstrated through course assignments. (3 lecture hours a week.) (Prerequisites: [88-524](#) or equivalent.)

88-558. Network Security

The course presents a concise discussion on the discipline of cryptography- covering algorithms and protocols underlying network security applications, encryption, hash functions, digital signatures, and key exchange. Internet security vulnerabilities, firewalls and their limitations, cryptographic technology and services, PPP and data layer security, IPSec and key management for network layer security, TLS, SSH and transport layer security, secure e-mail, secure infrastructure protocols, Kerberos authentication, secure RPC, remote authentication, authorization and tunneling protocols, virtual private networks, secure remote access, multicast security are covered. Practical applications are covered through assignments. (3 lecture hours a week.)

88-559. Physical Design Automation for VLSI and FPGAs

Introduction to backend CAD flow for VLSI and FPGAs; algorithms and CAD tools for technology mapping, floor planning, partitioning, placement and routing; exposure to timing analysis and timing-driven layout; assignments will involve use of academic and/or industrial CAD tools as well as development of simple CAD tools for specific layout tasks. (3 lecture hours a week.) (Prerequisites: consent of the instructor.)

88-560. Reconfigurable Computing

History and evolution of reconfigurable computing (RC) systems; FPGA-based and multi-FPGA systems, CAD mapping tools, run-time reconfiguration, study of recent RC systems from academia and industry targeting a wide range of applications. Literature review and paper presentation on specific topics is also required. The course may require a mix of project and assignments. (3 lecture hours a week.) (Prerequisite: consent of the instructor.)

88-561. Statistical Communication Theory

This course describes the fundamentals of Statistical Communications in detail. The topics covered include: hypothesis testing, Bayes and the Neyman-Pearson criteria, minimum variance unbiased estimation, Cramer-Rao bound, sufficient statistics, maximum likelihood estimation, minimum MSE and maximum a posteriori estimation, linear MMSE estimation, detection of signals in white/colored noise, detection of signals with unknown parameters, composite hypothesis testing, generalized likelihood ratio test, sequential detection, and Wald's test. Applications of digital communications, radar/sonar signal processing, seismology, and biomedical engineering are discussed. (3 lecture hours a week.) (Prerequisites: [88-419](#) or equivalent, and [88-524](#) or equivalent.)

88-562. VLSI Implementation of Digital Signal Processing Systems

The course provides a concise discussion on the various aspects of implementations for DSP algorithms. The course begins with an overview of DSP algorithms. Topics discussed are: implementation platforms, pipelining and parallel processing, systolic

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architecture, finite wordlength effects in digital filters, pipelined and parallel filters and adaptive filters, and bit-level arithmetic architectures. (3 lecture hours a week.) (Prerequisite: [88-521](#) or equivalent.)

88-563. Wireless Communication Systems

Overview of mobile communications, the characterization and modeling of time-variant fading and/or dispersive channels, digital communication system performance over fading dispersive channels, diversity reception, optimum receiver, trellis-coded modulation, (fundamentals, performance evaluation and applications to mobile communications), spread spectrum systems, and code division multiple access (CDMA), TDMA, FDMA, multiple access schemes, CSMA, Aloha. Concepts on wireless ad hoc networks will also be introduced, MAC, routing, QoS protocols for these networks will be covered. (3 lecture hours a week.) (Prerequisite: [88-419](#) or equivalent.)

88-590. Special Topics

Selected advanced topics in a field of research in the Electrical Engineering. (May be repeated more than once for credit if the topics are different.) (3 lecture hours a week.)

88-797. Thesis

88-798. Dissertation

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GRADUATE FACULTY

Professor Emeritus

Watt, Daniel Frank; B.Sc. (Alberta), Ph.D. (McMaster), P.Eng.-1969.

Professors

Northwood, Derek Owen; B.Sc. (Eng.), A.R.S.M. (London), M.Sc. (Part I), Ph.D. (Surrey), F.I.M.M.M., F.A.S.M., FIMMA, F.I.E. Aust., C.Sci. (U.K.), C.P.Eng. (Australia), P. Eng.-1976.

Alpas, Ahmet T.; B.A.Sc., M.Sc. (Middle East Tech., Turkey), Ph.D. (Open University, U.K.) P.Eng., GM/NSERC Industrial Research Chair-1989.

Sokolowski, Jerzy; M.M.E., Ph.D. (Tech. U. Silesia, Poland)-1993.

Associate Professor

Altenhof, William; B.A.Sc., M.A.Sc., Ph.D. (Windsor), P.Eng.-1999.

Hu, Henry; B.A.Sc. (Shanghai), M.A.Sc. (Windsor), Ph.D. (Toronto)-2000.

Assistant Professors

Bowers, Randy; S.M. (M.I.T.), B.S., Ph.D. (Rensselaer)-2000.

Nie, Xueyuan; B.A.Sc., M.Sc. (Nanjing), Ph.D. (Hull, UK)-2003.

Stoilov, Vesselin; M.Sc. (Sofia, Bulgaria), M.Sc. (Sofia, Bulgaria/Erlangen, Germany), Ph.D. (Alberta)-2003.

Edrisy, Afsaneh; B.Sc. (Isfahan University of Technology), Ph.D., (Windsor)-2004.

Adjunct Professors

Li, Naiyi; B.S. (National Cheng-Kung University)

Cheng, Yang-Tse; B.S., M.S., Ph.D. (Caltech)-2003.

Perry, Thomas; B.S. (Michigan), M.S. (Wisconsin), Ph.D. (Michigan)-2003.

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Material Design, Development: Aluminum alloys (wrought, cast, particulate, reinforced), structure refinement, nanocrystalline alloys, solidification and precipitation processing, metal hydrides for energy applications, ceramics and cementitious materials, metallic forms, materials for batteries and fuel cells, smart materials, computational materials science.

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Material Processing: Surface coatings, surface modification technologies (PVD, CVD, thermal spraying) welding, machining, galvanizing and galvannealing of steels, steel fabrication, nanofabrication.

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Mechanical Properties of Materials: Creep and fatigue behaviour, deformation mechanisms, computer simulation of deformation, corrosion, erosion, impact testing, crashworthiness evaluation.

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Light Metals Casting Technology: Advanced foundry processes for lightweight castings for automotive engines; aluminum and magnesium alloys; new generation foundry materials, solidification modelling, die casting process control.

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Tribology (Wear) Research: Friction and wear of metal matrix composites, coatings for tribological applications, development of wear resistant materials for automotive applications, micromechanical modeling of tribological processes.

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All courses listed will not necessarily be offered in any given year.

89-501. Advanced Crystallography

Application of X-ray diffraction principles to the study of materials, application of Fourier series, single crystal techniques, studies of preferred orientation, imperfections. (3 lecture hours a week.)

89-502. Phase Transformations

Phenomenological treatment of transformation processes; diffusion controlled and diffusionless (martensitic) transformations; application of thermodynamic and phenomenological rate laws to transformations: nucleation, recrystallization, precipitation, spinoidal decomposition, ordering, eutectoid decomposition, etc. (3 lecture hours a week.)

89-505. Strengthening Mechanisms in Materials

Dislocation-particle interactions, strengthening by dislocation substructures, particle and fiber reinforcement, strong microstructures from the melt, strong microstructures from the solid. (3 lecture hours a week.)

89-506. Microscopy of Materials

The theoretical and technical aspects of the study of microstructure and composition of materials, optical microscopy, electron microscopy (scanning and transmission) including electron diffraction and image analysis principles, electron microanalysis, x-ray topography, field-ion microscopy, relationship of observed microstructures to the macroscopic properties of materials. (2 lecture, 2 laboratory hours a week.)

89-507. Fracture Mechanics

The fracture mechanics approach to design; physical significance of fracture toughness; measurement of fracture mechanics parameters; non-destructive inspection techniques; principles of fracture-safe design; the relation between the microscopic and macroscopic aspects of plane-strain fracture; fracture of specific metallic and nonmetallic materials. (3 lecture hours a week.)

89-510. Solidification Fundamentals

Fundamental principles of solidification theory including thermodynamics, kinetics, solid-liquid interface morphology and growth mechanics. Solidification mechanisms of pure metals. Heat flow phenomena in casting and crystal growth. Effect on solidification heat transfer of process variables, casting and mold properties, metal and mold temperatures. Students will apply the fundamentals of thermodynamics and kinetics to materials processes such as casting and welding. (3 lecture hours a week.)

89-511. Casting: Modeling and Simulation

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Review of casting fundamentals. Techniques for mathematical model formulation. Development of general numerical method based on control volume finite difference scheme to predict mold filling, heat transfer, and solidification phenomena. Treatment of gates, runners, risers, and overflow. Mesh generation for full casting. Applications using commercial casting-simulation software. Students will apply their knowledge of engineering mathematics and transport phenomena to the processes of manufacturing light weight automotive components. (3 lecture hours a week.)

89-512. Metal Casting Technology

Introduction and historical overview of casting. Casting processes, mould design and materials, metallurgical simulation. Metallurgical considerations, liquid metal treatment, heat treatment, casting defects and their prevention. Discussion of challenges faced by today's foundries. (3 lecture hours a week.)

89-513. Tribology: Materials and Manufacturing Aspects

This course will prepare students to perform experimental and analytical work on the materials and manufacturing aspects of tribology. Fundamental equations of wear, wear testing methods; micromechanisms of wear, modeling of surface contacts, frictional heating during sliding contact; tribology of internal combustion engines, friction and wear during machining operations; wear control via surface coatings, coatings for cutting tools. (3 lecture hours a week.)

89-590. Special Topics in Materials

Selected advanced topics in the fields of engineered materials and materials Engineering. (3 lecture hours a week.)

Current topics include:

Creep of Metals and Alloys
Microscopy of Materials II
Wear of Materials
Composite Materials
Fatigue of Metals and Alloys
Polymers
Ceramics
Welding
Materials Degradation
Polymer Injection Molding
Thin Films and Coatings
Computational Contact Mechanics in Tribology

89-797. Thesis

89-798. Dissertation

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INDUSTRIAL AND MANUFACTURING SYSTEMS ENGINEERING

GRADUATE FACULTY

Professors

Lashkari, Reza S.; B.Sc. (Tehran), M.S.I.E., Ph.D. (Kansas State), P. Eng.-1977.

Pasek, Zbigniew; M.Sc (Warsaw Institute of Technology), M.S. E., Ph. D. (Michigan)-2005

Wang, Hunglin (Michael); B.S. (National Tsing-Hua U.), M.S. (State U. of New York, Buffalo), Ph.D. (Iowa), P.Eng.-1991.

El Maraghy, Hoda A.; B.Eng. (Cairo), M.Eng., Ph.D. (McMaster), P.Eng.-1994.

El Maraghy, Waguih; B.Eng. (Cairo), M.Eng., Ph.D. (McMaster), P.Eng.-1994.

Associate Professors

Abdul-Kader, Walid; B.A.Sc. (Université du Québec à Trois-Rivières), M.A.Sc. (École Polytechnique de Montréal), Ph.D. (Laval), P.Eng.-2003.

Oriet, Leo; B.A.Sc., M.A.Sc., Ph.D. (Windsor), P.Eng., CCPE,-2003.

Pasek, Zbigniew J. ; PhD, MSE (University of Michigan), MSc (Warsaw University of Technology)-2005.

Assistant Professor

Zhang, Guoqing (Michael); B.Eng. (Southeast U), M.Eng. (Southwest U), Ph.D. (City U of HK)-2002.

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Industrial and Manufacturing Systems Engineering offers a graduate program leading to the degree of Doctor of Philosophy (Ph.D.). This multi-disciplinary doctoral program ncludes the study, management and control of integrated systems of people, machines, and technologies utilized to improve the quality and productivity of the entire system. The Master of Applied Science (M.A.Sc.) and Master of Engineering (M.Eng.) are also offered, encompassing basic as well as applied research.

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INDUSTRIAL AND MANUFACTURING SYSTEMS ENGINEERING: COURSE DESCRIPTIONS

Courses offered by Industrial and Manufacturing Systems Engineering at the graduate level are listed below. Students may take courses from outside Industrial and Manufacturing Systems Engineering with permission of the Chair of the Program Graduate Committee and the advisor.

All courses listed will not necessarily be offered in any given year.

91-500. Optimization

Classical theory of optimization. Kuhn-Tucker conditions. Unconstrained optimization; gradient methods, conjugate gradient methods, variable metric methods, search techniques. Constrained optimization. Approximation methods, projection methods, reduced gradient methods; penalty function methods; computational algorithms. Recent advances in optimization. Use of computer software packages. (Prerequisite: [91-312](#) or equivalent.) (3 lecture hours a week.)

91-501. Industrial Experimentation and Applied Statistics

Distributions of functions of variables, estimations and tests of hypotheses, power of tests, non-parametric tests, sampling techniques, analysis of variance, randomized blocks. Latin squares and factorial experiments. (Prerequisite: [91-227](#) or equivalent.) (3 lecture hours a week.)

91-502. Manufacturing Systems Simulation

Discrete-event system simulation. Random number generation. Stochastic variate generation. Input parameters; identification and estimation. Output analysis. Static and dynamic output analysis; initial and final conditions; measures of performance and their variance estimation; confidence interval. Design of experiments. Various sampling techniques. Single and multifactor designs. Fractional designs. Response surfaces. Regeneration method for simulation analysis; Monte Carlo optimization. (3 lecture hours a week.)

91-503. Production and Inventory Control Systems

Analysis of production-inventory systems. Inventory systems; deterministic, single-item and multi-item models; quantity discounts; stochastic, single-period models; periodic review and continuous review models. Production planning. Static demand models; product mix and process selection problems; multi-stage planning problems. Dynamic demand models; multi product and multistage models. Operations scheduling; job shop scheduling; line balancing. New directions in production systems research. (Prerequisite: [91-413](#) or equivalent.) (3 lecture hours a week.)

91-504. Advanced Operations Research I

Theory and computational techniques for solving linear and integer programming problems. Theoretical foundations of the simplex algorithm. Duality and sensitivity analysis. Network flow methods. Integer programming problems. Branch and bound methods, implicit enumeration methods, cutting plane methods. Interior point methods and other recent developments. (Prerequisite: [91-312](#) or equivalent.) (3 lecture hours a week.)

91-505. Advanced Operations Research II

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Probabilistic O.R. models. Markovian decision process. Queueing theory. Single channel and multichannel queueing systems. Queues with general arrival and service patterns. Bulk queues and priority queues. Applications of queueing models. Probabilistic dynamic programming. (Prerequisite: [91-412](#) or equivalent.) (3 lecture hours a week.)

91-507. Advances in Industrial Ergonomics

Ergonomics and work design; human workload measurement in industry; visual display terminals at the workplace; signal detection and visual inspection; user-computer interaction; human factors aspects of flexible manufacturing systems; effects of individual and combined environmental stressors on human performance. (Prerequisite: [91-415](#) or equivalent.) (3 lecture hours a week.)

91-508. Reliability Engineering

Basic reliability distributions. Constant failure rate models-exponential reliability function, Poisson process. Time dependent failure models-the Weibull, normal, log-normal distributions. State-dependent systems-Markov analysis. System reliability-system structure function. Reliability growth testing-noon-parametric methods, censored testing and accelerated life-testing. Design for reliability-specification, reliability allocation, failure analysis, system safety. Maintainability and availability. (Prerequisite: [91-327](#) or equivalent.) (3 lecture hours a week.)

91-509. Computer-Integrated Manufacturing

Development of CIM; the CIM pyramid-key functions. System integration; standards for communications-MAP. Data base as the hub of CIM-types of data base. Role of simulation and support systems-decision support systems and expert systems. Sensor technology, robot vision, and group technology. Impact of CIM. Factory of the future. (Prerequisite: [91-411](#) or equivalent.) (3 lecture hours a week.)

91-510. Advanced Engineering Economy

Principles and methods for engineering analysis of industrial projects and operations. Criteria for economic decisions, project investment analysis, gain and loss estimating and techniques for economic optimization under constraint are included. Emphasis is placed on the construction and use of analytical models in the solution of engineering economy problems. Elements of risk and uncertainty are included through use of probabilistic techniques. (Prerequisite: [85-313](#) or equivalent.) (3 lecture hours a week.)

91-511. Stochastic Processes

Stochastic processes. The Poisson process-relationship to exponential, Erlang and uniform probability distributions. Markov chains-basic limit theorem. Continuous time Markov chains - birth-and-death processes, time-dependent probabilities, limiting probabilities, relationship to the exponential distribution, uniformization. Renewal theory-limit theorems, renewal reward processes, regenerative processes, computing the renewal function. Brownian motion and stationary processes. (Prerequisite: Statistics [91-412](#) or equivalent.) (3 lecture hours a week.)

91-512. Manufacturing Systems Paradigms

Manufacturing systems paradigms (including DML, Batch, Cells, FMS & RMS), components, characteristics, automation, operation, planning and control. Changeability and mass customization. Integrated products/systems design, process planning, GT & CIM. Special topics: Assembly, Robotics, Inspection, Quality and Cost. (Prerequisite: [91-413](#), or equivalent / permission of instructor). (3 lecture hours a week.)

91-513. Advanced Manufacturing Technology

Developments in nontraditional methods in EDM and ECM. Trends in automation. Recent developments in manufacturing processes; micromanufacturing-integrated circuits and laser machining. Advances in computer technology, CAD and CAM. Kinematics of manipulation robots, artificial intelligence, monitoring and vision systems. (Prerequisite: [91-321](#) or equivalent.) (3 lecture hours a week.)

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91-514. Engineering Design, Methodology & Applications

Engineering Design is a creative, iterative and often open-ended process subject to constraints. Topics include: design creativity & problem solving, engineering conceptual design & embodiment design, practices for product realization design theories and methodologies, parametric design, probabilistic design, industrial design, design and manufacturing integration, concurrent Engineering, materials selection in design, design for x (e.g. manufacturing, assembly), engineering design communication. Significant time is devoted to the applications of design theories and methodologies and to a product/process design realization. (3 lecture hours a week.)

91-515. Artificial Intelligence Applications in Manufacturing

The objective of this course is to teach graduate students how artificial intelligence techniques can be applied to manufacturing operations. Detailed topics to be discussed in this course include: basic knowledge representation methods and problem solving techniques; different search algorithms; introduction to AI high level languages; introduction to the CLIPS shell; AI application in Design; AI application in Operation Management; AI application in Diagnosis; and, AI application in Control. (Prerequisite: 91-503 or 91-504 or equivalent.) (3 lecture hours a week.)

91-516. Computer-Aided Design (CAD)

This course will focus on computer-aided methods and applications. The lectures present basic and generic principles and tools, supplemented with significant hands-on practice and engineering applications. Various topics are studied and practiced using CAD/CAE software, such as Engineering design and the role of CAD, geometric modelling systems, representation of curves and surfaces, surface modelling, solid modelling and applications, parametric representations, assembly modelling, computer-aided engineering (CAE) and applications, distributed collaborative design, and digital mock-up. (Prerequisite: 91-411 or equivalent.) (2 lecture hours a week and 2 laboratory hours a week.)

91-590. Special Topics

Selected advanced topics in the field of Industrial Engineering. (3 lecture hours a week.)

Current topics include:

Sustainable Manufacturing
Industrial Control & Robotics
Management of Technology
Product Innovation & Design Management
Recent Advances in Industrial Ergonomics
Computer-Aided Modeling of Complex Surfaces
Lean Manufacturing & Supply Chain Management
Automotive Assembly Work Measurement
Manufacturing Systems: Modelling, Analysis and Performance Measures.

91-595. Graduate Seminar

Presentations by graduate students, staff, and visiting scientists on current research topics. Graduate students are required to register and give a presentation in the semester prior to thesis defence. All graduate students are expected to attend each and every seminar and no less than 75% of all seminars. This course will be graded on a Pass/Fail basis. (1 lecture hour a week.)

91-796. Major Paper

91-797. Thesis

91-798. Dissertation

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GRADUATE FACULTY

Professors

Rankin, Gary W.; B.A.Sc., M.A.Sc., Ph.D. (Windsor), P. Eng.-1980.

Zamani, Nader G.; B.Sc. (Case Western), M.Sc., Ph.D. (Brown), P.Eng.-1986.

Frise, Peter R.; B.Sc.(Eng.), M.Sc.(Eng.) (Queen's), Ph.D. (Carleton), F.C.A.E., P.Eng.-1997.

Reader, Graham T.; B.Tech. (Bradford), B.A. (O.U.), P.Sc./M.B.A./J.S.D.C., Ph.D. (Bradford), P.Eng., C.M.E., C.Eng., Eur.Ing., F.I.Mar. E.-1999.

Ting, David Sing-Khing; B.Sc. (Manitoba), M.Sc., Ph.D. (Alberta), P.Eng.-1997.

Associate Professors

Gaspar, Robert George Stephen; B.A.Sc., M.A.Sc., Ph.D. (Windsor), P.Eng.-1983.

Sobiesiak, Andrzej; M.Sc., Ph.D. (Warsaw), P. Eng.-1998.

Altenhof, William; B.A.Sc., M.A.Sc., Ph.D. (Windsor), P.Eng.-1999.

Hu, Henry; B.A.Sc. (Shanghai), M.A.Sc. (Windsor), Ph.D. (Toronto)-2000.

Fartaj, Amir; B.Sc., M.Sc., Ph.D. (Kansas), P.Eng.-2001.

Zheng, Ming; B.Sc. (Transport Tech. Institute), M.Sc. (Tsinghua), Ph.D. (Calgary), P. Eng.-2002.

Assistant Professors

Zhou, Biao; B.Eng., M.Eng. (Nanjing), Ph.D. (Tsinghua)-2002.

Green, Daniel E.; M.S.T. (Université de Metz), D.E.A. (INPL, France), M.A.Sc., Ph.D. (Sherbrooke)-2004.

Adjunct Associate Professor

Tjong, Jimi S-Y.; B.A.Sc., M.A.Sc., Ph.D. (Windsor), P.Eng.-1993.

Cross-Appointments

Barron, Ronald Michael; B.A., M.Sc. (Win-dsor), M.S. (Stanford), Ph.D. (Carleton)-1975.

Faculty Tam, Edwin Lap Tam; B.Sc., M.Sc. (Al-berta), Ph.D. (Toronto), P. Eng.-2001.

• Biological Sciences:
Programs Balachandar, Ram; B.E. (Madras), Ph.D. (Concordia), P.Eng.-2003.

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In addition, the Department offers a separate M.Eng. in Mechanical Engineering (Automotive Field) specifically designed for a cohort of international students, particularly foreign-trained engineers. For more information on this program contact the Centre for Executive Education at www.uwindsor.ca/execed.

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Course requirements for the Ph.D., M.A.Sc. and M.Eng. programs in Mechanical Engineering will be selected from the courses listed below and related courses in other programs. A student's course program will be formulated in consultation with the advisor and requires approval of the Graduate Studies Committee for Mechanical Engineering and the Chair of the Program Graduate Committee.

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With the permission of the advisor and Department Head (and under consultation with the Graduate Coordinator), Mechanical Engineering courses with numbers greater than 449 only and related to the graduate field of study may be taken for graduate credit for students enrolled in the M.A.Sc. and M.Eng. programs. Not more than one undergraduate course (numbered greater than 449 only) shall count as credit towards the course requirements for the M.A.Sc. or M.Eng. degree. These courses are not available for course credit towards the Ph.D. degree.

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In the case of M.Eng. students, the Chair of the Graduate Committee assumes the role of the advisor.

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92-503. Turbulent Flow

General turbulence theories, wall turbulence and free turbulence. (3 lecture hours a week.)

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92-506. Thermal Systems Design

Advanced systems design requiring the application of economics, heat transfer, simulation and optimization. (3 lecture hours a week.)

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92-507. Experimental Techniques in Flow Measurements

A course covering the theory of flow and velocity measurement. Emphasis will be placed on hot wire instruments and turbulence measurements. (3 lecture hours a week.)

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92-509. Multiphase, Multicomponent Flows

A thorough treatment of the basic techniques for analyzing one-dimensional multiphase, multicomponent flows in order to predict flow regimes, pressure drop, etc. Practical applications in fluidization, sedimentation and boiling heat transfer. (3 lecture hours a week.)

[The Master's Degree](#)

92-516. Industrial and Motor Vehicle Noise

Hearing damage risk criteria and in-plant noise regulations; determination of permissible exposure levels due to continuous and intermittent noise. Measurement of machine noise and standard procedures. Fundamentals of noise control.

[Research Institutes](#)

Characteristics and levels of motor vehicle and traffic noise; motor vehicle noise control legislation and standard procedures for measurement. (3 lecture hours a week.)

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92-517. Automotive Applications for Noise, Vibration and Harshness Evaluation

This course introduces the automotive applications and tools for the evaluation of noise, vibration and harshness. It includes reviews of measurement techniques presently used in the automotive industry to measure various aspects of noise, including the concept of sound quality, vibration and the quantification of the term harshness. The course consists of a review of papers which are to be presented to the class. Participants

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perform critical reviews on the presentations. Three lecture hours per week. Course evaluation is based on weekly reports, presentations of reviews of papers and critical reviews by participants. (3 lecture hours a week.)

92-530. Combustion Engineering

An introductory graduate course on combustion engineering, covering a broad range of topics of importance to the field including chemical thermodynamics and kinetics, flames and combustion rates, and detonation of gaseous mixtures. The emphasis is on the understanding of the combustion processes involved in practical systems. (Antirequisite: [92-590-01](#).) (3 lecture hours a week.)

92-531. Numerical Heat Transfer and Fluid Flow

This course is concerned with the ability of using numerical methods to predict heat transfer, fluid flow and related processes. The course consists of an introduction to Computational Fluid Dynamics, descriptions of the general governing differential equations, discretization methods for the differential equations, numerical simulation of conductive heat transfer, numerical treatment of convection and diffusion and calculations of flow fields. (Antirequisite: [92-590-02](#).) (3 lecture hours a week.)

92-532. Modeling of Thermo-fluid Systems

This course will cover the basic types of mathematical models that are used to describe Thermo-fluid systems. Lumped as well as distributed parameter models will be considered with analytical as well as numerical methods of solution. Modern solution tools such as Simulink, Maple, Fluent and Wave will be utilized whenever appropriate. The topics to be considered may include but are not limited to: two-phase flow, transient flow, turbulence, non-newtonian flow, boiling, evaporation, condensation and fluid-structure interaction. (Antirequisite: [92-590-07](#).) (3 lecture hours a week.)

92-533. Turbulent Reacting Flows

This course will cover the following topics: experimental investigation of flames, thermodynamics of combustion processes, transport phenomena, chemical kinetics, reactions mechanism, laminar premixed and diffusion flames, the Navier-Stokes equations for the reacting flows, turbulent premixed and non-premixed flames, low temperature oxidation and engine knock, and pollutants formation. (Antirequisite: [92-590-08](#).) (3 lecture hours a week.)

92-534. Introduction to Computational Fluid Dynamics

This course is intended to provide basic knowledge required to initiate research or applications in computational fluid dynamics. Topics include: numerical methods for model hyperbolic, parabolic and elliptic equations; analysis of difference schemes; numerical stability; explicit and implicit methods; artificial viscosity; linearization techniques; approximate factorization; preconditioning, iterative solutions, successive over-relaxation (SOR), successive line over-relaxation (SLOR), alternating direction implicit (ADI); two-dimensional structured grid generation; introduction to finite volume method. (Antirequisite: [62-577](#).) (3 lecture hours a week.)

92-535. Advanced Topics in Computational Fluid Dynamics

This course is a continuation of [92-534](#). Advanced topics in computational fluid dynamics (CFD) will be discussed, including: structured and unstructured grid generation on surfaces and three-dimensional; Navier-Stokes and Euler solvers; applications of finite volume method; turbulence modeling; current issues in CFD. Students will carry out project work using one or more commercial CFD packages. (Prerequisite: [92-534](#).) (Antirequisite: [62-587](#).) (3 lecture hours a week.)

92-536. Fundamentals Of Clean Engine Technology

This course focusses on the understanding of fuel properties, combustion processes, exhaust emissions, and pollution prevention in diesel and other lean-burn IC engines. Introduction to Stirling and other external combustion engines.

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- Electrical Engineering:
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- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

92-540. Applied Finite Element Analysis

This course focuses on the modeling aspects of the finite element method using three well known commercial Finite Element Analysis (FEA) software packages known as DYNA, IDEAS and ANSYS. A variety of stress analysis problems in two and three dimensions are studied and the accuracy of the simulations are assessed through comparison with available theoretical and experimental results. Both static and dynamic situations are covered. The students are expected to prepare a final report summarizing their work and an oral presentation. (Antirequisite: [92-590-03](#).) (3 lecture hours a week.)

92-541. Introduction to Vibration Measurement and Modal Analysis

This course is concerned with basic concepts of modal theory, basic modal parameter analysis, single degree of freedom methods, introduction to frequency response functions, general modal analysis and multiple degree of freedom and global methods. The accuracy of Fast Fourier Transforms (FFT) and windowing, FFT analysis options, zoom, coherence and quality assessment, relationship to finite element modeling will also be considered. In addition, basic measurement techniques, calibration techniques, transient and steady state excitation techniques, general frequency response function interpretation, case study (laboratory experiment) and validation of measured and analyzed data are studied. (Antirequisite: [92-590-04](#)) (3 lecture hours a week.)

92-542. Advanced Topics in Mechanical Design

The topics discussed in the course will be selected from the following: design and analysis of mechanical details such as welded and bonded joints, minimum constraint design, fluid power systems, mobile hydraulic systems, project planning, optimization, decision making methodology, ISO/QS9000 quality methods, concurrent engineering, design reports, design reviews, design for manufacture and assembly, design for quality, configuration design, design for minimum cost, parametric design, developing size ranges for families of products, geometric dimensioning and tolerancing, Taguchi methods, manufacturability and serviceability considerations and product warranties. (Antirequisite: [92-590-05](#).) (3 lecture hours a week.)

92-543. Product Design and Development

This course covers the process of new product creation including topics selected from: the product development team; the product development cycle; conceptual development; models including technology push products; platform products; process-intensive products and customized products; needs analysis - identifying the customer and their needs; establishing product specifications; concept generation; concept selection; product architecture; industrial design and ergonomics; prototyping; economics of the development process and project management. (Antirequisite: [92-590-06](#).) (3 lecture hours a week.)

92-544. Finite Element Methods for Crashworthiness and Impact Analysis

The topics include a brief history on the use of numerical tools in automotive/impact field, Explicit and Implicit time integration techniques, Shell and Solid finite element formulations for impact analyses - advantages and disadvantages, Zero Energy Modes (Hourglassing) and Hourglass control, Material modeling for large displacement problems, Finite element modeling for contact, Mesh Adaptivity, Arbitrary Lagrangian and Eulerian Meshes for large deformation problems, Use of implicit integration techniques for impact problems, Quasistatic simulations as well as the development of finite element models for impact analyses. (Antirequisite: [92-590-12](#).) (3 lecture hours a week.)

92-545. Automotive Control Systems

This course will address advanced control design techniques for automotive systems. The interdisciplinary goal of this course is to present the application of control system design to engine operation and vehicle mechanics as well as the approaches for parameter/model identification and estimation of automotive systems. For graduate students in electrical engineering, this course will make it possible for them to access automotive models and to understand engine dynamics, both for the purposes of applying control design techniques. For graduate students in mechanical engineering,

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this course will provide a chance for them to learn how to apply advanced control design strategies to automotive systems. It is expected that, after taking this course, graduate students from both engineering fields will be able to address automotive control problems from interdisciplinary point of views and to complement expertise in their own areas. (Prerequisite: [92-412.](#)) (Antirequisite: [92-590-22](#)) (Cross-listed with [88-536.](#)) (3 lecture hours a week.)

92-590. Directed Special Studies

A special course of studies with content and direction approved by the student's chief advisor. Although there may not be formal lectures, the course will carry the weight of three lecture hours.

92-593. Introduction to Finite Element Analysis

This course covers the fundamentals of the Finite Element Analysis (FEA) with emphasis on solid mechanics and stress analysis. The subject of finite elements is treated using variational principles such as the principle of virtual work and total potential energy. The course deals with a variety of structural components such as springs, axially loaded bars, beams under bending, two-dimensional/axially symmetric/three-dimensional continuum elements and their formulation is static and dynamic analysis. In addition to three hours of lecture, a two-hour computer lab is mandatory where the students use different commercial FEA software. (Antirequisite: [62-593](#)) (3 lecture hours a week and 2 laboratory hours a week.)

92-595. Graduate Seminar

Presentations by graduate students, staff, and visiting scientists on current research topics. Graduate students are required to register and give a presentation in the semester prior to thesis defence. All graduate students are expected to attend each and every seminar and no less than 75% of all seminars. This course will be graded on a PASS/FAIL basis. (1 lecture hour a week.)

92-796. Major Paper

92-797. Thesis

92-798. Dissertation

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Political Science: Graduate
Faculty

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Psychology: Graduate Faculty

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ENGLISH

GRADUATE FACULTY

Professor Emeritus

Ditsky, John M.; Ph.B., M.A. (Detroit), Ph.D. (New York)-1967.

University Professor

Dilworth, Thomas R.; B.A., M.A., Ph.D. (Toronto)-1977.

Associate Professors

Harder, Bernhard D.; B.A., M.A. (British Columbia), Ph.D. (North Carolina)-1970.

Quinsey, Katherine M.; B.A. (Trent), Ph.D. (London)-1989.

Straus, Barrie Ruth; B.A. (Oregon), M.A., Ph.D. (Iowa)-1990.

Matheson, C. Suzanne; B.A. (McGill), M.A. (Toronto), D. Phil. (Oxford)-1991.

Jirgens, Karl E.; B.A. (Toronto), M.A., Ph.D. (York)-2004. (Head of the Department)

Holbrook, Susan; B.A. (Victoria), M.A., Ph.D. (Calgary)-2000.

Jacobs, Dale; B.A., M.A. (Alberta), Ph.D. (Nebraska)-2000.

Pender, Stephen; B.A. (Toronto), M.A. (Queen's), Ph.D. (Toronto)-2000.

Davison, Carol Margaret; B.A. (Concordia), M.A. (York), Ph.D. (McGill)-2000.

Markotic, Nicole; B.A. (Calgary), M.A. (Manitoba), Ph.D. (Calgary)-2006.

Assistant Professors

Douglass-Chin, Richard; B.A. (McMaster), M.A. (Western), Ph.D. (McMaster)-2004.

Cabri, Louis; B.A. (Carleton), M.A., (Calgary), Ph.D., (Pennsylvania)-2006.

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The English department offers two fields within the M.A. Program in English: Language and Literature and, Creative Writing and Language and Literature. Within the Language and Literature field, there are two options: the Thesis Option and the Course Work Option.

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The Creative Writing and Language and Literature field allows students to combine graduate-level study of literature with advanced work on creative writing in a two-term workshop and by developing a significant independent writing project. Within the Language and Literature field, the Course Work Option offers exposure to a wide variety of topics in literature, composition and rhetoric, and theory. The Thesis Option allows students to investigate a single topic in depth through independent, extended research with faculty supervision.

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The specific requirements for each field are:

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M.A. IN ENGLISH: CREATIVE WRITING AND LANGUAGE AND LITERATURE

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Four graduate seminar courses
[26-590](#). Creative Writing Seminar (over both the Fall and Winter terms)
[26-794](#). Creative Writing Project (a novel, a play, a collection of poems or short stories)

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M.A. IN ENGLISH: LANGUAGE AND LITERATURE

THESIS OPTION
Five graduate seminar courses
[26-797](#). Thesis/Project (of at least 20,000 words)

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COURSE WORK OPTION
Eight graduate seminar courses.

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For both fields, students must include [26-500](#), Scholarship and the Profession (or equivalent) in their program in addition to their regular course load.

Admission Requirements

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In addition to the requirements set forth in 1.3 and 1.6.1 for admission to the Faculty of Graduate Studies and Research and to programs leading to the Master's degree, applicants for admission to the Candidate year in the programs leading to the Master of Arts degree in English should have the following undergraduate preparation:

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Faculty	1) Some courses, normally four, in the pre- and early-modern periods, that is, from Old English through the Eighteenth Century;
• Biological Sciences: Programs	2) Some courses, normally four, in the modern period, that is, the Nineteenth and Twentieth Centuries, including Canadian and American;
• Biological Sciences: Courses	3) Some courses, normally two, from the areas of Critical History, Theory and Approaches, Scholarship and Bibliography, and Language and Linguistics;
Odette School of Business: Graduate Faculty	4) Additional courses from any of the above areas to make up the total number of courses required for a four-year English B.A.
• Business: Programs	Students who do not have a four-year B.A. or its equivalent may be admitted to the Faculty of Graduate Studies and Research in a qualifying (M1) program. In such a program, the student is expected to register in appropriate undergraduate courses in order to satisfy the requirements above. Alternatively, students who are deficient in any of the stated requirements for admission may be invited or may request to write a qualifying examination (see below, "Qualifying or Placement Examination").
• Business: Courses	
Chemistry and Biochemistry: Graduate Faculty	Students who are admitted to the Faculty of Graduate Studies and Research in the M.A. program will be expected to select courses in their first year to complete the requirements specified above.
• Chemistry and Biochemistry: Programs	In addition to the documents specified in 1.3.2, applicants must submit a "Proposal of Studies" (about 500 words) with their applications indicating the program and option to which they are applying and discussing such issues as their areas of academic or creative interest, their undergraduate training, and their academic or career goals. Students applying to the field in Creative Writing must submit, with their application, a portfolio of representative creative work (20-25 pages). Students with a four-year B.A. in English may apply to either of the fields and to any of the options. Students with interdisciplinary interests, with honours degrees combining English with another discipline, or with abilities or backgrounds that do not correspond to the particular requirements for admission listed above, but who have an overall average of A-, apply to either field but may be required to take additional courses.
• Chemistry and Biochemistry: Courses	
Communication Studies: Graduate Faculty	<i>Qualifying or Placement Examination:</i> An applicant for admission to the Candidate year for the Master's degree who is deficient in any of the stated requirements for admission to this level of graduate study may be invited, or may request, to write a qualifying examination. A similar examination is available as a placement test, on the basis of which students in the two-year M.A. program may be granted advanced standing.
• Communications Studies: Programs	
• Communication Studies: Courses	Students from other universities may arrange to take these examinations in other centres provided the program coordinator is notified well in advance.
Computer Science: Graduate Faculty	<i>Counselling:</i> Students admitted to one of the fields of the M.A. program in English will be assigned a faculty advisor who will be available to counsel them on all aspects of their work. The program coordinator (or a delegate) must approve a student's program of study before registration.
• Computer Science: Programs	
• Computer Science: Courses	<i>Grades:</i> After admission to candidacy, graduate students in the M.A. program in English must maintain at least a B- average, but graduate credit is given only at the A and B level. A student whose grade in a graduate course is less than B- may be allowed to repeat the course or to substitute another for it, at the discretion of the Dean of Graduate Studies and Research and the program coordinator. The student may not repeat more than one course (see 1.4.3).
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Physics: Graduate Faculty

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Political Science: Graduate
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Psychology: Graduate Faculty

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Social Work: Graduate
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ENGLISH: COURSE DESCRIPTIONS

All graduate courses are seminars. Enrolment is limited in these courses, because considerable contribution is expected from each member of the seminar. For such courses, the corresponding undergraduate survey course, or an acceptable equivalent, is ordinarily a prerequisite. This condition may be waived only by agreement of both the program coordinator and the professor offering the seminar. The specific topics of individual courses may vary, depending upon the interests and needs of professors and students. It is thus impossible to list in detail the many topics that may from time to time be offered. The schedule below lists only the major periods or forms of literature in which special topics courses may be available.

Special topics courses having the same course number may be taken more than once providing the course content is different and with the permission of both the program coordinator and the professor offering the course. More than one seminar or course numbered in sequence in any of the listed areas may be offered in a given term.

In the Fall term each year, the Department of English publishes a Graduate Handbook giving complete information as to specific topics of the courses to be offered in the upcoming academic year, with texts, reading assignments, and other details about requirements of the course, wherever possible. Students are welcome to write to or call the office for a copy of this handbook.

Not all of the following areas will necessarily be represented by course offerings in any one year.

26-500. Scholarship and the Profession

26-501. Tutorials

26-505. The English Language and Linguistics

26-510. Literature of the Old English Period

26-515. Literature of the Middle English Period

26-520. Literature of the Renaissance

26-525. Renaissance Drama

26-530. Literature of the Restoration Period

26-535. Literature of the Eighteenth Century

26-540. Literature of the Romantic Period

26-545. Literature of the Victorian Period

26-550. Literature of the Twentieth Century

Faculty	26-555. Literature of the United States
• Biological Sciences: Programs	26-560. Literature of Canada
• Biological Sciences: Courses	26-565. Post-Colonial Literature
	26-570. Literary Genres: Poetry
	26-575. Literary Genres: Drama
Odette School of Business: Graduate Faculty	26-580. Literary Genres: Fiction
• Business: Programs	26-585. Literary Genres: Criticism/Cultural Studies
• Business: Courses	26-590. Creative Writing Seminar
	26-596. Composition Pedagogy: Theory and Practice (Required for Graduate Assistants assigned to teach 26-100 .)
Chemistry and Biochemistry: Graduate Faculty	26-794. Creative Writing Project
• Chemistry and Biochemistry: Programs	26-797. Thesis/Project
• Chemistry and Biochemistry: Courses	
Communication Studies: Graduate Faculty	
• Communications Studies: Programs	
• Communciation Studies: Courses	
Computer Science: Graduate Faculty	
• Computer Science: Programs	
• Computer Science: Courses	
Earth Sciences: Graduate Faculty	
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[Engineering Materials: Graduate Faculty](#)

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[Industrial and Manufacturing Systems Engineering \(IMSE\): Graduate Faculty](#)

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Faculty of Nursing: Graduate
Faculty

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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

- Physics: Programs
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Political Science: Graduate
Faculty

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- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
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Social Work: Graduate
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ENVIRONMENTAL SCIENCE (Great Lakes Institute for Environmental Research)

GRADUATE FACULTY

Cross-appointments

Professors

Haffner, G. Douglas; B.Sc. (Queen's), Ph.D. (London, England)-1986.

MacIsaac, Hugh J.; B.Sc. (Windsor), M.Sc. (Toronto), Ph.D. (Dartmouth)-1992.

Fryer, Brian J.; B.Sc. (McMaster), Ph.D. (Massachusetts Inst. Tech.), F.R.S.C.-1993.

Associate Professors

Heath, Daniel; B.Sc., M.Sc. (McGill), Ph.D. (British Columbia)-2000.

Assistant Professors

Graniero, Phil A.; B.E.S., M.E.S. (Waterloo), Ph.D. (Toronto)-2000.

Drouillard, Ken G.; B.Sc. (Windsor), M.Sc. (Manitoba), Ph.D. (Trent)-2002.

Weisener, Christopher; B.Sc. (Western Ontario), Ph.D. (South Australia)-2005.

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The Great Lakes Institute for Environmental Research (GLIER) offers a graduate program leading to an M.Sc. in Environmental Science and a Ph.D. in Environmental Science. The GLIER graduate program supports advanced research and develops graduate expertise to assess the effects of multiple stressors on aquatic environments, with an emphasis on large lakes and their watersheds.

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THE DOCTOR OF PHILOSOPHY DEGREE

In addition to the general requirements, the following requirements must be met by all students proceeding to the Ph.D. degree.

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and Research \(FGSR\)](#)

Admission Requirements

[Programs Offered - Overview](#)

Initial Application Procedure: The initial application procedure for students who wish to enrol in the Ph.D. program through GLIER includes:

[Application Procedures](#)

1) Completion of the "Application for Admission to the Faculty of Graduate Studies and Research" form;

2) two official transcripts of all undergraduate and graduate studies from all colleges and universities attended;

[Faculty Regulations](#)

3) three confidential letters of reference;

4) Graduate Record Examination, if required; and TOEFL results, as required;

[The Degree of Doctor of
Philosophy](#)

5) letter of intent by the student that clearly outlines his/her interest in the program, proposed focus of study and the prospective supervisor.

[The Master's Degree](#)

Prospective students will be encouraged to contact a potential supervisor before applying for admission to the GLIER graduate programs. If a suitable supervisor cannot be identified, the student will be dissuaded from applying for admission.

[Research Institutes](#)

Two streams of Ph.D. applicants are envisaged. Applicants holding an M.Sc. degree from the University of Windsor or from another recognized university may be admitted directly to the GLIER Ph.D. program. Alternatively, students enrolled in the GLIER M.Sc. program who are making exceptional progress may transfer to the PhD program after one year on the recommendation of their Master's Committee and with the approval of the GLIER Graduate Committee and the Faculty of Graduate Studies and Research. Students eligible for transfer will have made outstanding progress in both course work and research, and have a first-author research article submitted to a refereed journal at the time of transfer.

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Odette School of Business: Graduate Faculty

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• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

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• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

Program Requirements

(1) Students entering the program with an M.Sc. degree must fulfill all requirements listed below:

(a) compliance with regulations outlined in University of Windsor Graduate Calendar;

(b) successful completion during the first year of enrolment in the program of an oral qualifying exam, administered by the student's Doctoral Committee. Students will be required to possess comprehensive knowledge of their field of study as well as any ancillary fields relevant to the dissertation topic (as determined in advance by the Doctoral Committee). Students will be evaluated on a satisfactory/ unsatisfactory basis;

(c) successful completion of the GLIER Multiple Stressors and Environmental Modelling course (one credit). The course will be graded in accordance with university standards;

(d) successful completion of the GLIER Multidisciplinary Graduate Seminar course (this course is taken over two semesters and is equivalent to two credits). The course will be graded in accordance with university standards. All Ph.D. students who have successfully completed this course will be required to audit the course each year following their first year of residency;

(e) any additional course work mandated by the student's Doctoral Committee to eliminate perceived weaknesses in the student's background preparation or to increase awareness of other disciplines;

(f) submission of a Research Progress Report to the Doctoral Committee every six months and meetings with the committee every six months to discuss progress and research plans;

(g) completion of an original research project reported in a dissertation;

(h) defence of the dissertation in a public lecture and before the Doctoral Committee; and

(i) publication of at least one original research article and submission of at least one additional article derived from the dissertation in a refereed journal. Exemption from this requirement is granted only with permission of the Graduate Program Committee.

(2) Students transferring to the Ph.D. program must have received no grade less than A- or satisfactory for all course work taken in the GLIER M.Sc. program. In addition, transfer students must have at least one first-author research article submitted to a refereed journal at the time of transfer. Transfer can be granted only by the Faculty of Graduate Studies and Research acting on a recommendation from the student's Doctoral Committee and the Graduate Program Committee. Students approved for transfer into the Ph.D. program must comply with regulations (a) through (j) above.

In addition to courses offered in the GLIER programs, students will be advised to enroll in additional courses in other AAUs, as needed. It is expected that these courses will offer intensive treatments of particular topics to assist students in resolving perceived weaknesses. These courses are offered in a variety of AAUs including Earth Sciences, Biological Sciences, and Chemistry and Biochemistry and involve various combinations of theory and lab work. All graduate students must complete the GLIER Multidisciplinary Graduate Seminar course and must complete the GLIER Environmental Research Proposal course. The Multiple Stressors and Environmental Modelling Course is required for all Ph.D. students. Other courses will supplement core GLIER courses, be offered on a rotating basis, and be mandated by Doctoral Committees, depending on students' perceived deficiencies in background preparation.

THE MASTER OF SCIENCE DEGREE

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- Economics: Courses

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- Education: Programs
- Education: Courses

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- Electrical Engineering:
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Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

In addition to the general requirements, the following requirements must be met by all students proceeding to the M.Sc. degree.

Admission Requirements

Applicants must submit a letter of intent that clearly outlines his/her interest in the program, proposed focus of study and the prospective supervisor.

Prospective students will be encouraged to contact a potential supervisor before applying for admission to the GLIER graduate program. If a suitable supervisor cannot be identified, the student will be dissuaded from applying for admission.

For admission to the GLIER M.Sc. program, applicants must hold an appropriate Honours Bachelor's degree (or equivalent) from a recognized university. Students must maintain no less than a B+ average in their final two years of undergraduate, full-time study to be eligible for admission into the GLIER M.Sc. program.

Program Requirements

(a) compliance with regulations outlined in University of Windsor Graduate Calendar;

(b) successful completion of the GLIER Multidisciplinary Graduate Seminar course (this course is taken over the first two semesters and is equivalent to two credits). The course will be graded in accordance with university standards. Following successful completion of this course, all M.Sc. students will be required to continue registering in this course as an audit;

(c) successful completion of the GLIER Environmental Research Proposal course (M.Sc. level). The course will be graded according to university standards.

(d) any additional course work mandated by the student's Examining Committee to eliminate perceived weaknesses in the student's background preparation or to increase awareness of other disciplines;

(e) submission for publication of an original research article derived from the thesis to a refereed journal. Exemption from this requirement is granted only with permission from the GLIER Graduate Committee;

(f) submission of a Research Progress Report to the Master's Committee every six months and a meeting with the committee to review progress and problems encountered during the preceding six months and to plan future work;

(g) completion of an original research project reported in a thesis;

(h) defense of the thesis in a public lecture and before the Master's Committee.

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- [Mechanical Engineering:
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- [English: Programs](#)
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[Environmental Science
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- [History: Programs](#)
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Faculty of Nursing: Graduate
Faculty

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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

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Political Science: Graduate
Faculty

- [Political Science: Programs](#)
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Psychology: Graduate Faculty

- [Psychology: Programs](#)
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Social Work: Graduate
Faculty

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Sociology: Graduate Faculty

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68-550. GLIER Multidisciplinary Graduate Seminar

This course will be team-taught by core GLIER faculty who will be responsible for organizing seminar modules in their area of research expertise. Modules will include external speakers and encompass lectures and discussions utilizing a multidisciplinary approach to environmental research, and its role in developing ecosystem-based management decisions that affect large lakes and their watersheds. Students are expected to participate in discussions, prepare and deliver critiques of seminars, and present a seminar. (Required of all GLIER graduate students.) (2 hours per week for 2 semesters.) (6.0 credit course.)

68-570. Environmental Research Proposal

A course aimed at developing proposal and grant writing skills for the academic environment. Students will prepare an original research proposal based on their research topic and defend it publicly. Students will engage in grant writing exercises, developing skills typical of those required by major funding agencies. Effective oral presentation skills will be developed. (Required of all M.Sc. students.) (2 hours per week.) 3.0 credit course.)

68-680. Multiple Stressors and Environmental Modelling

A course aimed at developing an understanding of the nature of interactive, multiple stressors on large watersheds and lakes. Stressors considered will include chemical contaminants, nutrient enrichment, species invasions, climate change, population harvesting and land use changes. Students will model and gain appreciation for how single and interactive stressors affect large lakes and their watersheds, and how confounding issues can be isolated and explored. Students are expected to prepare and participate in critiques of the published literature, and contribute an original essay that explores these issues. (Required of all GLIER Ph.D. students.) (2 hours per week.) (3.0 credit course.)

68-797. Thesis

68-798. Dissertation

Faculty

- Biological Sciences:
Programs
- Biological Sciences:
Courses

Odette School of Business:
Graduate Faculty

- Business: Programs
- Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

- Chemistry and Biochemistry:
Programs
- Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

- Communications Studies:
Programs
- Communciation Studies:
Courses

Computer Science: Graduate
Faculty

- Computer Science:
Programs
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Earth Sciences: Graduate
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- Economics: Courses

Faculty of Education: Graduate Faculty

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- CEE: Areas of Specialization
- CEE: Courses

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- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
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Faculty

- Nursing: Programs
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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
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- Political Science: Programs
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Psychology: Graduate Faculty

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GRADUATE FACULTY

Professors

Tucker, Bruce; B.A., M.A. (Toronto), Ph.D. (Brown)-1988.

Howsam, Leslie; B.A. (Waterloo), M.A., Ph.D. (York)-1993.

Associate Professors

Simmons, Christina; B.A. (Radcliffe), M.A., Ph.D. (Brown)-1990.

Burr, Christina A.; B.A., M.A. (Western Ontario), Ph.D. (Memorial)-1997.

Palmer, Steven; B.A. (British Columbia), M.A., Ph.D. (Columbia)-2001.

Assistant Professors

Lazure, Guy; B.A. (Montreal), M.A., Ph.D. (Johns Hopkins)-2003.

Wright, Miriam; B.A. (Western Ontario), M.A. (Queen's), Ph.D. (Memorial)-2004.

Nelson, Robert; B.A., M.A. (Simon Fraser), Ph.D. (Cambridge)-2005.

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THE MASTER OF ARTS DEGREE

The Master of Arts degree in history combines an intensive project of research with an orientation to contemporary modes of historical interpretation. A program attentive to developing the craft of historical research, writing and analysis, the graduate program prepares students equally for continuing with academic studies in history at the doctoral level and for a variety of other careers where the knowledge and skills of the historian are valued.

The graduate program has been designed to make all the courses offered relevant to all students. Courses are geared to the knowledge level and analytical ability of students emerging from a Canadian undergraduate programs in history (or equivalent) with a strong academic record. Geographical specializations of faculty include Canada, the United States, Britain, Europe, and Latin America. Thematic specializations include social, cultural, and intellectual history; history of the state and society; history of women, gender, and sexuality; history of the book; history of medicine; and postcolonial history. Each thematic course allows students to come to terms with a number of modes of interpretation of a single historical problematic, and then apply historiographical analysis to their chosen nation-state situation and chronological period.

The program takes as its starting point the assumption that most students enter graduate work in history with an orientation to the history of a particular nation in a specific time period. The program's objective is to enable students to expand upon those initial interests and incorporate in their understanding a sophisticated critique of contemporary modes of historical interpretation. To that end, the five courses are thematic in focus; within the framework of each one, students have the opportunity to explore historiographical debates ranging outside the usual boundaries of time and place. When it comes to the Major Paper, the factors of specialization based on geography and chronology will converge with an appropriate interpretive mode and a suitable body of sources to generate the topic for a sophisticated research paper.

Full-time candidates for the Master of Arts degree will take, during their first two terms of enrollment, two required graduate courses ([43-503](#) and [43-504](#)) and three other graduate courses (offered from the range [43-505](#); [43-506](#); [43-507](#); [43-508](#); [43-509](#); [43-597](#); [43-598](#)). Most students registering in a given year will take all the courses offered, so that course work will normally be completed in the first two semesters. Each student will develop a research plan in conjunction with the required seminars [43-503/43-504](#), and embark on a Major Research Paper under the supervision of two members of the history faculty. A student may, with the consent of the Graduate Advisor or AAU Head, take one course in another University of Windsor graduate program or in History at Wayne State University. Part-time candidates must complete [43-503](#) before embarking on further courses.

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Programs

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Odette School of Business:
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Communication Studies:
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Faculty of Nursing: Graduate
Faculty

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All of the following courses will not necessarily be offered in any one year.

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43-503. Modes of Historical Interpretation

This course introduces students to a variety of methods and theories currently used to advance historical explanation. Particular attention will be paid to the role of narrative, the place of the social sciences, and the complexities of race, gender, ethnicity, and class in historical writing. Readings will also address the problem of synthesis, post-modernism and the relationship between history and public policy. This course also stresses the development of skills in critical reading and analytical writing.

[Important Dates: 2007-08](#)

43-504. Research Methods

This course introduces students to the range of methods and approaches to historical research, and to the problems associated with interpreting various kinds of sources. Students will identify and establish a research problem, in which they define the questions to be posed, and begin to move from broad to narrow approaches to their topic. They will discover and evaluate accessible sources of evidence, and at the same time develop an appropriate methodological and interpretive framework for a specific research project.

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43-505. Studies in Culture and the Self

This course will provide a critical approach to one of the most basic issues in Western intellectual culture. Recent scholarship has problematised the old narrative that people in early modern Europe were unique in "discovering" an inner private subject, or self. The course readings will introduce critiques relating to the way people in other times and cultures defined self in relation to culture; we will examine the influence of perceptions of gender, class and race upon modern representations of self, and also the question of whether a sense of the self continues to be meaningful at the turn of the twenty-first century.

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43-506. Studies in the History of Sexuality

This course will provide a thematic approach to the foundations of Western attitudes towards sexuality, especially as they developed in premodern Europe. The complex interweaving of ancient ideas, medicine, Christian law and theology, and popular practices and beliefs will be explored. This course is problem oriented and will explore some of the theoretical issues pertaining to the historical study of human sexuality.

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43-507. Studies in the History of Women and Gender

This course examines the historiography and theory of these two interrelated fields since 1970. It explores the themes and approaches in early studies of women's organizations, labour, and sexuality; the later growth of attention to differences of culture and power among women; and the more recent emergence of poststructuralism and the study of the interrelation of gender, class, and race. Readings will range across time periods and national boundaries but with an emphasis on the U.S. literature.

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43-508. Studies in the History of the Book and the Culture of the Written Word

This course will provide an introduction to the historical problems encountered and interpretive possibilities revealed when books (both artefacts and texts) become the focus of inquiry. Ranging broadly through a variety of disciplinary approaches to manuscript and print cultures on both sides of the Atlantic, we will consider such

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questions as the complex uses of literacy, and the extent to which technological transformations such as the printing press or the computer have determined literary and cultural change. Studies of the book trades (printing, bookselling, journalism, publishing of all kinds) will be used to illuminate changes in religious, scientific, scholarly, literary and other aspects of the cultures (from medieval to postmodern) in which they flourish.

43-509. Studies in Canadian Social History

The course discusses approaches, methods, and debates in the writing of social history in English Canada since 1970. Topics discussed include historiographical debates over the writing of a "national" history, the writing of labour and working class history, women's history, ethnic and immigration history, the history of sexuality, regional history, and family history. How the categories of class, gender, race, ethnicity and sexuality have been incorporated into the writing of Canadian social history is a focus of consideration.

43-510. Studies in Postcolonial History

This course evaluates important works of history and theory written from a postcolonial perspective. It focuses on novel approaches to studying people whose modern experience began as subordinate subjects of the West's colonizing projects. The course will also consider the influence of postcolonial scholarship on contemporary historiography in general. (2 lecture hours a week.)

43-597. Selected Topics in History

43-598. Selected Topics in History

43-796. Major Paper

A sophisticated scholarly essay, normally amounting to some 40-60 pages, incorporating research on primary sources (in most cases), and written under the supervision of two members of the graduate faculty, a supervisor and a second reader. There will be a public oral examination. Students are advised that they may be required to have proficiency in a language other than English in order to do their research.

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FACULTY OF HUMAN KINETICS

GRADUATE FACULTY

Professors Emeriti

Moriarty, Richard James; B.A., M.A. (Assumption), M.Ed. (Wayne State), Ph.D. (Ohio State)-1956.

Metcalfe, Alan; D.L.C. (Loughborough), B.P.E. (British Columbia), M.S., M.A., Ph.D. (Wisconsin)-1969.

Professors

Boucher, Robert L.; B.Sc. (Mankato State), M.Sc. (Illinois State), Ph.D. (Ohio State)-1974. (Dean, Human Kinetics)

Marino, G. Wayne; B.A., B.P.E. (McMaster), M.P.E. (Windsor), Ph.D. (Illinois)-1977. (Acting Department Head, Kinesiology)

Frank, James S.; B.Sc., M.Sc. (Waterloo), Ph.D. (Southern California)-2006.

Associate Professors

Kimmerle, Marliese; B.A., B.P.H.E. (Queen's), M.A., Ph.D. (Michigan)-1969

Holman, Margery J.; B.A., B.P.H.E., (Windsor), M.Ed. (Wayne State), Ph.D. (Michigan State)-1970.

Paraschak, Victoria; B.P.E. (McMaster), M.H.K. (Windsor), Ph.D. (Alberta)-1984.

Weir, Patricia; B.H.K., M.H.K. (Windsor), Ph.D. (Waterloo)-1991.

Andrews, David M.; B.P.E., M.Sc. (McMaster), Ph.D. (Waterloo)-2000.
Martyn, Scott G.; B.A., M.A., Ph.D. (Western Ontario)-2000.

Chandler, Krista; B.A. (Prince Edward Island), M.A. (Queen's), Ph.D. (Western Ontario)-2001.

Taks, Marijke; B.Sc., M.Sc., Ph.D. (Leuven)-2001.

Assistant Professor

Jakobi, Jennifer; B.H.K. (Windsor), M.Sc. (York), Ph.D. (Western Ontario)-2003.

Loughead, Todd; B.Sc. (Ottawa), B.Ed. (Brock), M.Sc. (Toronto), Ph.D. (Western Ontario) -2005

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General Nature of the Program

[Important Dates: 2007-08](#)

There are two streams to the program, Sport Management and Applied Human Performance: both streams include a thesis option which normally will lead to doctoral work. Both offer an Internship option which combines coursework with practical work term placement designed to serve as an enrichment experience.

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Admission Requirements

1) In addition to the general admission requirements of the Faculty of Graduate Studies and Research outlined in 1.3 and 1.6.1, the following are employed in the determination of a candidate's admission status:

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- (a) Thesis students must have a faculty research advisor before being admitted into one of the following areas of specialization:
- i) Applied Human Performance
 - ii) Sport Management

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- (b) A person who holds a three-year degree in another discipline is required to complete the requirements for the Master's degree as outlined in the Graduate Calendar. Up to ten Kinesiology undergraduate courses beyond the minimum requirement may be deemed necessary by the graduate committee.

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- (c) A person who holds a four-year degree in another discipline will be required to take up to five Kinesiology undergraduate courses prior to taking graduate courses.

[The Master's Degree](#)

Normally, the makeup courses are to be selected from the areas of specialization: Applied Human Performance and Sport Management.

Undergraduate courses, assigned at the discretion of the Graduate committee and the student's advisor to form the make-up requirements, may be found in the Undergraduate Calendar (see 9.2).

[Research Institutes](#)

Program Requirements

- 1) In addition to the general requirements for the Master's degree, the candidate must:

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- (a) complete a minimum four graduate-level courses and a thesis, or substitute a minimum of three graduate-level courses and an internship;
- (b) pass an oral examination based on a thesis;

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- 2) Only one Special Problems (95-510) course may be taken regardless of area of

Faculty	specialization.
• Biological Sciences: Programs	3) <i>Master's Committee and Advisors</i> : Prior to a candidate's initial registration, the Department Head will assign a program advisor for each candidate.
• Biological Sciences: Courses	The appointed advisor may or may not act as chairperson of the Master's thesis committee, which will include at least two additional members, one of whom shall be a faculty member from outside Human Kinetics. An additional member from the graduate faculty of another university may be invited to serve on the Master's thesis committee.
Odette School of Business: Graduate Faculty	4) <i>Examinations</i>
• Business: Programs	(a) <i>Thesis Option</i> : The thesis committee will conduct the oral examination of the thesis proposal. When the thesis has been completed, the thesis committee, in consultation with the candidate, will determine whether to proceed with or postpone the final oral examination. For the final oral examination of the thesis, the committee will be supplemented by another member of the Kinesiology graduate faculty who will act as the chairperson. Following the successful defense, the candidate will deposit all copies of the thesis in the Office of the Faculty of Graduate Studies and Research for binding and distribution (two copies for the Leddy Library, a copy to the Faculty of Human Kinetics).
• Business: Courses	(b) <i>Internship Option</i> : The internship consists of a minimum of 360 hours of applied work experience in a sport management or applied human performance setting. The internship option is open to students who have completed four graduate courses. Students develop an internship experience in conjunction with a graduate faculty member prior to registering for the internship. Students are required to complete the "Internship Objectives Form" prior to completing 50 hours of their experience. Their work experience is supervised and evaluated (mid-term and final evaluation) by the cooperating field professional. Students are also required to prepare and defend a research report. Final evaluation is on a Pass/Non-Pass basis and the student is required to pass both the experience and the research report components of the internship. Following the successful completion, the candidate deposits two copies of the internship and research report in the Faculty of Human Kinetics.
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APPLIED HUMAN PERFORMANCE

The program focuses on the application of movement science in sport, the workplace, and activities of daily living. Students pursue course work, thesis research, and internships that examine the basic and applied principles of human biomechanics, ergonomics, exercise physiology, lifespan development, motor learning and control, and sport and exercise physiology. To fulfil degree requirements, each candidate must complete the following:

Thesis Option

- 1) Three course from [95-504](#), [95-510](#), [95-522](#), [95-523](#), [95-524](#), [95-525](#), [95-526](#), [95-527](#), [95-528](#), [95-590](#), [95-595](#).
- 2) A Thesis ([95-797](#)).
- 3) One other graduate course chosen in consultation with the thesis advisor.

Internship Option

- 1) Five of [95-504](#), [95-522](#), [95-523](#), [95-524](#), [95-525](#), [95-526](#), [95-527](#), [95-528](#), [95-590](#), [95-595](#).
- 2) Two other graduate courses chosen in consultation with the internship advisor.

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3) Internship ([95-795](#)).

SPORT MANAGEMENT

The program focuses upon the understanding of the components of organizational studies in the context of sport. Students will pursue course work and either thesis research or an internship that focuses on leadership, organizational behaviour, sport marketing, Olympic studies, legal and social issues of management, historical and sociological perspectives of sport. To fulfil degree requirements, each candidate must complete the following:

Thesis Option

- 1) Three courses from [95-500](#), [95-501](#), [95-502](#), [95-503](#), [95-505](#), [95-506](#), [95-510](#), [95-562](#), [95-590](#), [95-595](#).
- 2) A Thesis ([95-797](#)).
- 3) One other graduate course chosen in consultation with the thesis advisor.

Internship Option

- 1) Five courses from [95-500](#), [95-501](#), [95-502](#), [95-503](#), [95-505](#), [95-506](#), [95-562](#), [95-590](#), [95-595](#).
- 2) Two other graduate courses chosen in consultation with the internship advisor.
- 3) Internship ([95-795](#)).

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KINESIOLOGY: COURSE DESCRIPTIONS

All courses listed will not necessarily be offered in any given term. All courses are three hours a week unless otherwise noted.

95-500. Sport Leadership

A survey course using the current research and literature relating to leadership in administrative environments. Several leadership theories will be reviewed and analyzed. Various models of leadership will be discussed relative to the sport administration environments.

95-501. Legal and Human Rights Issues in Sport Management

An analysis of the research and professional practice related to the role of legislation and litigation as they relate to sport and physical activity programs and services and participation. Specific emphasis will be placed on the issue of human rights, covering topics including legislation and case study analyses from the sport management domain.

95-502. Organizational Behaviour in Sport Organizations

An analysis of the interdependent nature of the social/psychological components of organizational behaviour. Special reference will be made to individual and group behaviour in terms of the organizational effectiveness of sport organizations.

95-503. Sport Marketing

An analysis of the research and literature related to the marketing of sport and physical activity programs and services. Specific emphasis will be placed on the review and application of sport marketing research, an overview and application of the related marketing terms and the development of a marketing plan for a sport organization.

95-504. Advanced Topics in the Psychology of Sport & Exercise

An analysis of the research and literature related to the psychological phenomena influencing the participants in the sport and exercise situation. Topics include specific sport/exercise intervention techniques, measurement issues and social psychological aspects of sport and exercise.

95-505. Social Issues in Sport Management

Sport managers operate within a social world. This course examines current social issues and their implications for sport managers. Issues include the impact of various institutions on sport management (e.g., sport, government, economics, media, education), as well as the relationship between sport management and various power relations in society (e.g. race, gender, class, age, and physical ability).

95-506 Crises, Politics and Commercialism in the Modern Olympic Movement

This course focuses on two dimensions: (1) the study of three persistent problems and issues surrounding the history of the Modern Olympic Movement (crises, politics, commercialism), and (2) individual independent research on a course-related topic for which the greater amount of evidence exists in primary documents housed in various regional archives.

95-510. Special Problems

Independent study conducted under the advisement of a graduate faculty member. This

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course cannot be used as a review of literature for thesis. (Prerequisite: consent of program committee.)

95-511 Group Dynamics in Sport and Exercise

The course examines the psychological factors influencing sport and exercise behaviours from a group dynamics perspective. Emphasis is placed on understanding the theoretical constructs and empirical research underlying an individual's involvement in group settings and familiarizing the student with salient group measurement issues. Topics include the impact of cohesion, group leadership, collective efficacy, and group norms in the context of sport and exercise.

95-522. Instrumentation and Modeling in Kinesiology

This course will be designed to expose students to methods and instruments used to collect and process data in Kinesiology research. In addition, the course will expose students to examples of modelling approaches used to represent the nervous system, muscle force generation, musculoskeletal structure and the cardiopulmonary system.

95-523. Applied Biomechanics of Human Performance

This seminar/lecture course will focus on the application of biomechanics concepts and measurement techniques in the study of human performance. Specific topics will reflect the interests of students and may include areas such as sports, locomotion, activities of daily living, and equipment testing and design.

95-524. Biomechanics in the Work Place

This seminar/lecture course will focus on applications of human performance biomechanics in the work place. Special emphasis will be placed on theoretical and practical methods of assessing work place efficiency and effectiveness while considering the comfort and safety of the worker.

95-525. Motor Skill Acquisition

This seminar/lecture course will examine the learning processes involved in skill acquisition by novice and experienced learners in a variety of contexts. In lab/field settings students will carry out task analysis and acquire movement observation/analysis skills.

95-526. Motor Control of Human Performance

This seminar/lecture course will examine the perceptual, cognitive, and neurophysiological aspects of human motor control. Different theoretical and methodological approaches will be examined and applied to the understanding of functional movements in the home, workplace, and sporting environment. Changes in the control of movement in special populations will also be examined.

95-527. Physiological Responses to Human Movement Demands

This seminar/lecture course will examine the acute response and chronic adaptive nature of selected physiological systems directly related to human movement. Specific topics will reflect the interests of students and may include areas such as temperature regulation and fatigue as well as current topics of interest in human movement.

95-528. Neuromuscular Physiology

This seminar/lecture course will examine fundamental concepts of the neuromuscular system as they relate to movement, exercise and sport. Special emphasis is placed on physiological adaptations of the neuromuscular system as a result of acute (exercise, fatigue, training) and chronic (age, disease) perturbations.

95-562. Research Methods

A review and appraisal of qualitative and quantitative research methods with special reference to design, data collection, analysis and generalization.

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95-590. External Graduate Course

(Must be a course approved by the Faculty of Graduate Studies and Research).

95-595. Selected Topics

Topics developed by individual faculty members, based on new developments in a particular area of study. (Subject to Kinesiology Council approval.)

95-795. Internship

(See Graduate Internship Handbook.)

95-797. Thesis

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MATHEMATICS AND STATISTICS

GRADUATE FACULTY

Professor Emeriti

Chandna, Om Parkash; B.A. (Panjab), M.A. (Delhi), M.Sc., Ph.D. (Windsor)-1968.

Duggal, Krishan L.; B.A. (Panjab), M.A. (Agra), M.Sc., Ph.D. (Windsor)-1968.

Kaloni, Purna N.; M.Sc. (Allahabad), M.Tech., Tech., Ph.D. (Indian Inst. of Tech.)-1970.

Wong, Chi Song; B.S. (National Taiwan), M.S. (Oregon), M.S., Ph.D. (Illinois-Urbana)-1971.

University Professors

Lemire, Francis William; B.Sc. (Windsor), M.Sc., Ph.D. (Queen's)-1970.

Paul, Sudhir R.; B.Sc., M.Sc. (Dacca), Ph.D. (Wales)-1982.

Professors

Britten, Daniel J.; B.A. (Merrimack College), M.S., Ph.D. (Iowa)-1971.

Barron, Ronald Michael; B.A., M.Sc. (Win-dsor), M.S. (Stanford), Ph.D. (Carleton)-1975.

Fung, Karen Yuen; B.A., M.S., Ph.D. (U.C.L.A.)-1976.

Caron, Richard J.; B.M., M.M., Ph.D. (Wa-terloo)-1983.

Hlynka, Myron; B.Sc. (Manitoba), M.A., Ph.D. (Pennsylvania State)-1986.

Hu, Zhiguo; B.Sc., M.Sc. (Northeast China), Ph.D. (Alberta)-1993.

Ahmed, Ejaz; B.Sc., M.Sc. (Karachi), M.Sc. (Guelph), Ph.D. (Carleton)-2002.

Assistant Professors

Alfakih, Abdo Y.; Licence (Lebanese U.), M.Sc., Ph.D. (Michigan)-2003.

Hussein, Abdulkadir A.; B. Sc. (U of Trieste), M.Sc., Ph.D. (Alberta)-2003.

Monfared, Mehdi; B. Sc. (Sharif U. Of Technology), M.Sc. (Iran U. of Science & Technology), Ph.D. (Alberta)-2003.

Yee, Wai Ling; B.Math (Waterloo), Ph.D. (M.I.T.)-2006.

Faculty Lau, Michael K.; B.A. (St. Olaf College), M.A., Ph.D. (Wisconsin)-2007.

• Biological Sciences:
Programs

Adjunct Professors

Brill, Percy; B.Sc. (Carleton), M.A. (Columbia), Ph.D. (Toronto)-1984.

• Biological Sciences:
Courses

Adjunct Associate Professors

Mandelbaum, Marvin; B.A.Sc. (Toronto), M.Sc. (Technion), Ph.D. (Toronto)-2002.

Odette School of Business:
Graduate Faculty

Cross-Appointments

• Business: Programs

Aneja, Yash Paul; B.Sc., M.Sc. (Indian Statistical Institute), Ph.D. (Johns Hopkins)-1984.

• Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

• Chemistry and Biochemistry:
Programs

• Chemistry and Biochemistry:
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Communication Studies:
Graduate Faculty

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Physics: Graduate Faculty

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Political Science: Graduate
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THE DOCTOR OF PHILOSOPHY DEGREE

Admission Requirements

For admission requirements and period of study, the general regulations of the Faculty of Graduate Studies and Research should be consulted (see 1.5). Qualifying examinations will not normally be required.

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CANDIDACY

Students will be recommended for candidacy (see 1.5.1) only after successful completion of the Comprehensive Examinations and course work.

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Program Requirements for the Ph.D. (Statistics)

[Application Procedures](#)

1) *Course Work*: Students admitted with an M.Sc. or equivalent must successfully complete at least four graduate courses numbered with the prefix 65-; further graduate courses may be assigned by the Graduate Studies Committee in consultation with the advisor. Transfer credits will not be allowed. (Up to two courses prefixed 65- may be replaced by [62-510](#) and/or [62-511](#).)

[Faculty Regulations](#)

Students admitted with an Honours B.Sc., or equivalent, which is done only in exceptional cases, must successfully complete at least twelve graduate courses, eight of which must be numbered with the prefix 65-; further graduate courses may be assigned by the Graduate Studies Committee in consultation with the advisor. Transfer credits will not be allowed.

[The Degree of Doctor of
Philosophy](#)

It is strongly recommended that all Ph.D. students in Statistics take a measure theoretic probability course.

[The Master's Degree](#)

Students registered in the Dissertation are required to register in Seminar 65-795. Students must attend no less than 75 percent of all seminars in the first 3 years. Every doctoral student is required to give a presentation prior to dissertation defense.

[Research Institutes](#)

2) *Doctoral Committee*: within the student's first term of study at the doctoral level, a doctoral committee will be appointed by the Head of the Department upon the advice of the Graduate Studies Committee. The doctoral committee must be approved by the Executive Committee of the Faculty of Graduate Studies and Research. The doctoral committee shall include the student's advisor as chairperson, at least two other members of the Department, one faculty member from outside the Department, and an external examiner, who shall not be involved in the preparation of the dissertation. The selection of the external examiner is subject to the approval of the Dean of Graduate

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• Biological Sciences: Programs

Studies and Research. Members of other departments may also be invited to join the committee (see also 1.5.2).

• Biological Sciences: Courses

3) *Dissertation*: The dissertation shall be defended at an oral examination (see also 1.5.2).

Odette School of Business: Graduate Faculty

4) *Comprehensive Examinations*: A student must pass a series of three written comprehensive examinations as follows:

- i. Paper I-Mathematical Statistics and Probability
- ii. Paper II-Statistics OR Probability
- iii. Paper III-Topics (two topics mutually agreed upon by the advisor and student).

• Business: Programs

If a student fails an examination, it may be repeated once, but if the examination is failed a second time, the student must withdraw from the program (see also 1.5.3). In any case, these examinations must be successfully completed within twenty-five months of first registration in the doctoral program. If this deadline is not met, the student must withdraw from the program.

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

THE MASTER OF SCIENCE DEGREE

Program Requirements for the M.Sc. (Mathematics)

The candidate shall successfully complete one of the following courses of study:

- (a) seven graduate courses and a major paper;
- (b) six graduate courses and a thesis. The originality of a Master's thesis may lie in the organization, presentation, and scholarly evaluation, rather than in the result.

Communication Studies: Graduate Faculty

In addition to the above course work, students registered in the Major Paper/Thesis are required to register in Seminar [62-795](#). They must attend 75 percent of the regular department's seminars in the first year of the program.

• Communications Studies: Programs

Graduate courses completed at this institution must include two of the following: Real Analysis ([62-510](#)), Functional Analysis ([62-512](#)), or Partial Differential Equations ([62-561](#)).

• Communication Studies: Courses

Program Requirements for the M.Sc. (Statistics)

The candidate shall successfully complete one of the following courses of study:

- (a) seven graduate courses, of which at least five must be numbered with the prefix 65-, and a major paper;
- (b) six graduate courses, of which at least four must be numbered with the prefix 65-, and a thesis. The originality of a Master's thesis may lie in the organization, presentation, and scholarly evaluation, rather than in the result.

Computer Science: Graduate Faculty

In addition to the above course work, students registered in the Major Paper/Thesis are required to register in Seminar [65-795](#). They must attend 75 percent of the regular department's seminars in the first year of the program.

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

In both M.Sc. (Statistics) programs, up to two courses prefixed 65- may be replaced by [62-510](#) and/or [62-511](#).

• Earth Sciences: Programs

Master's Committee

• Earth Sciences: Courses

If the Thesis option is taken for either the M.Sc. (Mathematics) or the M.Sc. (Statistics), a Masters committee must be appointed within the student's first term of study at the II Master's (Candidate) level. The Master's committee must be approved by the Executive Committee of the Faculty of Graduate Studies and Research. The Master's committee

[Economics: Graduate Faculty](#)

shall include the student's supervisor as chairperson, one other member of the Department, and one faculty member from outside the Department.

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All courses listed will not necessarily be offered in any given year.

MATHEMATICS

62-510. Functions of a Real Variable I

Lebesgue measure, abstract measure, integration, monotone and dominated convergence theorems, Radon-Nikodym theorem, Hahn decomposition theorem, Fubini's theorem, L_p spaces.

62-511. Functions of a Real Variable II

Metric spaces, topological spaces, compactness, Stone-Weierstrass and Ascoli theorems, Baire category theorem, classical Banach spaces.

62-512. Functional Analysis I

Normed linear spaces and examples, Hahn-Banach theorem, open mapping theorem, principle of uniform boundedness, weak and weak* topologies on Banach spaces, Hilbert spaces and bounded linear operators on Hilbert spaces.

62-513. Functional Analysis II

Banach algebras and spectral theory, operator theory, C^* -algebras and their representations, elementary von Neumann algebra theory.

62-520. Abstract Algebra

Elements of group theory are explored including such topics as: the Sylow Theorems, classification of groups of low order, Jordan-Hölder Theorem, solvable groups, nilpotent groups, groups in terms of generators and relation, representations of groups, basic operations on representations, orthogonality relations

62-521. Ring Theory and Modules

This course is designed to introduce students to the structure theory of general rings and their modules. It will provide an appropriate foundation for more advanced graduate material in algebra at the doctoral level and will be an excellent preparation for doctoral comprehensive examinations. Topics covered will include: semisimple rings, Wedderburn-Artin Theorem, modules over a principal ideal domain, projective, injective and flat modules, introduction to homology theory.

62-523. Lie Algebras

Engel's Theorem, Lie's Theorem, criterion for semi simplicity, root space decomposition, universal enveloping algebra, PBW basis, representation theory, finite dimensional modules, Harish-Chandra's Theorem.

62-525. Matrix Algebra and Analysis

Aspects of measure theory and probability, convergence theorems for integrations and expectations, moments and inequalities, construction of Lebesgue-Stieltjes measure, Riemann-Stieltjes integral, comparison of Riemann and Lebesgue integrals, introduction to complex variable, contour integration, characteristics functions, elementary theorems on linear and matrix algebra, generalized and conditional

Faculty	inverses, distributions of quadratic forms. This course is designed for graduate students in Statistics.
• Biological Sciences: Programs	62-530. General Topology Elementary concepts of topology, product and quotient spaces, continuity and homeomorphisms, nets and filters, separation and countability, compactness, connectedness.
• Biological Sciences: Courses	62-551. Advanced Linear Programming By presenting results and their proofs, the student will acquire a solid understanding of the theory, algorithms and applications of linear programming. This course is a prerequisite for more advanced courses on integer programming, combinatorial optimization and networks flows. Topics emphasized include: formulations of linear programming problems, convex sets and convex functions, separation theorem, Farkas' lemma, duality theory, economic interpretation of duality, optimality conditions, primal and dual simplex algorithms, cycling, sensitivity analysis, interior-point methods and central path, primal-dual methods, convergence results.
Odette School of Business: Graduate Faculty	62-552. Nonlinear Programming This course will provide an introduction to the field of nonlinear programming. By presenting results and their proofs, the student will acquire a solid understanding of the theory behind most algorithms for solving nonlinear optimization problems. He/she will also acquire the knowledge and skills needed to conduct research in this area. Topics covered will include: unconstrained optimization, necessary and sufficient conditions for optimality, convex sets and convex functions, steepest descent method, Newton's method, conjugate gradient methods, quasi-Newton's methods, separation theorem and Farkas' lemma, Karush-Kuhn-Tucker conditions, constraint qualification conditions, duality theory, Barrier methods, and quadratic programming.
• Chemistry and Biochemistry: Programs	62-553. Integer Programming This course will provide the student with a rigorous introduction to the field of integer programming. Topics covered will include: modelling with integer variables, elements of computational complexity theory, elements of polyhedral theory, total unimodularity, branch and bound methods, cutting plane methods, implicit enumeration, Bender decomposition, dynamic programming, lagrangian relaxation, knapsack problems, set covering/packing/partitioning problems, heuristic methods.
• Chemistry and Biochemistry: Courses	62-554 Combinatorial Optimization This course will provide a rigorous introduction to combinatorial optimization. The student will develop a solid understanding of the theory, algorithms and applications of these problems and their connections to integer programming, linear programming and complexity theory. Topics will include: formulation of combinatorial optimization problems, polytopes and polyhedra, elements of computational complexity theory, shortest paths, bipartite and non-bipartite matchings, max-flow min-cut theorem, multi-commodity flow problems, clique and coloring problems, perfect graphs, traveling salesman problem, spanning trees, matroids.
Communication Studies: Graduate Faculty	62-561. Partial Differential Equations First-order equations, classification of second-order equations, canonical forms and general solutions of second-order equations, diffusion equations, Laplace equations, the maximum principle and uniqueness for the Dirichlet problem, wave equations, Riemann's method for linear hyperbolic equation, Green's functions and transform methods.
• Communications Studies: Programs	62-568. Numerical Analysis I General error analysis, direct solution of linear algebraic equations, iterative solution of linear equations, algebraic eigenvalue problems, numerical solution of a system of nonlinear equations, error analysis.
• Communication Studies: Courses	
Computer Science: Graduate Faculty	
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Engineering Materials:
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- Engineering Materials:
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Industrial and Manufacturing
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- IMSE: Areas of
Specialization

62-569. Numerical Analysis II

Interpolation and approximation, numerical integration and differentiation, finite differences. Numerical solution of ordinary and partial differential equations using finite differences.

62-598. Special Topics

62-795. Seminar

Presentations from graduate students, faculty and visiting researchers on various research topics of mathematics and statistics. Students must attend 75 percent of the regular department's seminars in the first year of the program. This course will be graded on a PASS/FAIL basis.

62-796. Major Paper

62-797. Thesis (M.Sc.)

STATISTICS

65-540. Theory of Probability

Basic probability model, random variables and their distributions, expectation, convergence of random variables and their distributions, independence and conditional dependence. Zero-one laws, characteristic functions, generating functions, Law of large numbers, Central Limit Theorem.

65-541. Stochastic Processes

Discrete and continuous time Markov processes, renewal theory, branching processes, Brownian motion.

65-542. Advanced Mathematical Statistics

A review of probability theory, transformations and expectations, common families of distributions, inequalities and identities, properties of a random sample, data reduction and best estimation strategies, asymptotic approximation.

65-543. Statistical Inference

Measure of performance, pure significance test and formal hypothesis testing, interval estimation, asymptotic evaluations, analysis of variance and regression, analysis of categorical data.

65-544. Multivariate Analysis

This course is aimed at giving theoretical and methodological background on inference procedure for the analysis of multivariate continuous data mainly under the assumption of normality.

65-546. Statistical Data Analysis

This course takes a computer-oriented approach to equip students with the experience of data analysis, beginning with designing of experiment to presentation of results. Depending on the background of the students, different topics will be emphasized.

65-548. Non-parametric Statistics

Nonparametric tests including Wilcoxon, Mann-Whitney, Smirnov, Fisher's exact test, Cox and Stuart test for trend, runs test. Estimation. Theory and applications.

65-549. Discrete Multivariate Analysis

This course is aimed at giving theoretical and methodological background for the analysis of discrete data mainly in the form of contingency tables. Other discrete models as part of the generalized linear models may be covered.

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65-550. Generalized Linear Models

This course is aimed at giving theoretical and methodological background for the analysis of discrete or continuous data using the generalized linear models and other semi-parametric models where full distributional assumptions cannot be justified.

65-552. Experimental Design

Factorial designs with and without interactions, randomized block, Latin square, balanced incomplete block, nested design, confounding factorial and other designs. Fixed, random and mixed models.

65-554. Theory of Sampling and Surveys

Sampling methods including simple random, stratified, cluster, PPS and multistage, ratio and regression estimates. Theory and applications.

65-555. Regression Analysis

Simple and multiple linear regression, inference on regression parameters, residual analysis, stepwise regression, polynomial regression, diagnostics and remedial measures for multicollinearity and influential observations, weighted least squares, logistic regression, nonlinear regression.

65-557. Large Sample Theory

This course will present the basic large sample theory with a minimum coating of abstraction and at a level with the usual program in statistics and applied statistics. The main objective is to present the essentials of large sample theory of statistics with a view toward its application to a variety of problems that generally crop up in other areas. Topics to be covered will include: mathematical background, stochastic convergence, weak convergence and central limit theorems, asymptotic behaviour of estimators and test statistic, multivariate extensions, bootstrapping.

65-558 Sequential Analysis

This course will equip graduate students in Statistics and Biological Sciences with a firm knowledge of the increasingly important sequential analysis methodology. Both theoretical and practical aspects of the sequential analysis applied to medical clinical trials and to biological studies will be covered in this course. Methodologies for designing and analyzing sequential clinical trials using both fully and group sequential methods: permuted block design, sequential biased coin design, Wald's SPRT procedures, O'Brien-Fleming and Pocock group sequential procedures, alpha- and beta-spending function approach, Whitehead's triangular tests, and post-trail estimation methods. Software such as SAS and Splus will be used for analyzing real and simulated trials.

65-559. Topics in Statistics

Topics offered may include queueing theory, statistical quality control, statistical consulting, survival analysis, time series analysis, decision theory, and Bayesian analysis.

65-795. Seminar

Presentations from graduate students, faculty and visiting researchers on various research topics of mathematics and statistics. Master students must attend 75 percent of the regular department's seminars in the first year of the program and Doctoral students must attend 75 percent of the regular department's seminars in the first 3 years. This course will be graded on a PASS/FAIL basis.

65-796. Major Paper

65-797. Thesis (M.Sc.)

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65-798. Dissertation (Ph.D.)

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FACULTY OF NURSING

GRADUATE FACULTY

Professors Emeritae

Thomas, Barbara Campbell; Reg.N., Dip.P.H.N., B.N.Sc. (Queen's), M.Ed. (Windsor), Ed.D. (Wayne State), -1969.

Rosenbaum, Janet N.; Reg.N., B.Sc.N., M.Sc.N., Ph.D., (Wayne State), Reg.N.-1975.

Cameron, W. Sheila; Reg.N., R.S.C.N. (Scotland), B.A. (McMaster), M.A. Nurs. Educ. (Detroit), Ed.D. (Wayne State), F.A.A.M.R.,-1976. (University Professor)

Professors

Carty, Laurie; Reg.N. B.Sc.N., B.A., M.Ed. (Windsor), Ph.D. (Wayne State),-1980.

Associate Professors

McMahon, Sharon; Reg.N. B.Sc.N., B.A., M.Ed. (Windsor), Ed.D. (Wayne State), -1973.

Yiu, Lucia, Reg.N. B.Sc. (Toronto), B.Sc.N., B. A.. (Windsor), M.Sc.N. (Western),-1987.

Rajacich, Dale; Reg.N. B.Sc.N. (Windsor), M.Sc.N. (Western Ontario),-1987.

Snowdon, Anne; Reg.N. B.Sc.N. (Western, Ontario), M.Sc. (McGill), Ph.D. (Michigan), -1988.

Kane, Deborah; Reg.N. B.Sc.N. (Windsor), M.Sc.N. (Western Ontario), Ph.D. (Michigan),-1989.

Hernandez, Cheri; Reg.N. B.Sc.N., B.A., M.Ed. (Windsor), Ph.D. (Toronto), Ph.D. (Case Western Reserve)-1997.

El Masri, Maher; B.Sc.N. (Alquds), M.Sc.N. (UMB), Ph.D. (UMB), Reg.N.-2002.

Assistant Professor

Fox, Susan M.; Reg.N., B.N. (Memorial), M.Sc.N. (Western Ontario)-2000, Ph.D. (Wayne State) -2000.

Patrick, Linda; Reg.N., B.Sc.N., M.A. (Central Michigan), M. Sc. (Windsor) -Ph.D. (McMaster) -2001.

Thrasher, Christine; Reg.N.(EC), B.Sc.N., B.A. (Windsor), M.Sc.N. (D'Youville), Primary Care Nurse Practitioner Certificate (Ryerson), PhD (McMaster University)-2001.

Williamson, Karen; Reg.N., B.Sc.N. (Toronto), M.Sc.N. (Toronto) Ph.D.(c) (Toronto)-2001.

Faculty

- Biological Sciences: Programs
- Biological Sciences: Courses

Adjunct Professor

Horsburgh, M. Elizabeth; Reg.N. B.Sc.N., B.A., M.Ed. (Windsor), M.Sc.N., Ph.D. (Wayne State), -1984.

Odette School of Business: Graduate Faculty

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Chemistry and Biochemistry: Graduate Faculty

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Communication Studies: Graduate Faculty

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THE MASTER OF SCIENCE DEGREE IN NURSING

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Mission Statement

[Important Dates: 2007-08](#)

The mission of the University of Windsor Master of Science degree program in Nursing is to prepare graduates for advanced nursing practice. Graduates will address societal health needs relating to health promotion and illness prevention, or human responses and adaptations to alterations in health. Through the integration of theory, research, and practice students will advance their scientific base for practice. In addition the program supports development of leadership and advocacy skills for contributions to health care, education and research. Through faculty guidance and self-directed learning activities, students from diverse backgrounds will develop advanced professional knowledge through critical thinking, decision making, and scholarly inquiry in a multicultural society. This program is especially designed to meet the needs of employed baccalaureate prepared nurses.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Admission Requirements

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1) All general regulations of the Faculty of Graduate Studies and Research admission requirements are applicable.

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2) Applicants must have a Bachelor of Science in Nursing or equivalent which includes physical assessment, and courses in research and statistics. Consideration may be given to nurse applicants holding degrees in other cognate disciplines.

[The Degree of Doctor of
Philosophy](#)

3) Applicants must have maintained an overall B average in their undergraduate nursing program.

[The Master's Degree](#)

4) Applicants must be eligible for a current certificate of competence as registered nurses in Ontario.

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5) Three Faculty of Nursing confidential reports must be completed by academic/professional referees, with at least one from an academic who has taught the applicant and one from a recent employment supervisor.

[General Courses, FGSR](#)

6) An "Applicant Profile" must be completed which includes a section addressing goals in seeking graduate education (narrative statement).

[Biological Sciences: Graduate](#)

7) Applicants whose native language is not English must submit certification of English proficiency (official TOEFL score or equivalent MELAB).

8) Applications for admission must be completed by January 15.

Faculty	9) An interview may be required.
• Biological Sciences: Programs	Program Requirements
• Biological Sciences: Courses	1) Candidates for the Master of Science degree in Nursing will pursue studies in one of two areas of concentration: (a) Human responses and adaptations to alterations in health of individuals, families and groups to acute and chronic illness. (b) Health promotion and illness prevention in selected populations.
Odette School of Business: Graduate Faculty	2) The requirements may be satisfied by pursuing a program of studies consisting of six compulsory courses and a thesis, or six compulsory courses, two elective courses and a major project/paper. Those who wish to include a thesis in their program must request approval from the Graduate Committee of the Faculty of Nursing.
• Business: Programs	Additional information concerning the procedure for theses and major papers may be obtained from the coordinator of graduate studies (see 1.6.3).
• Business: Courses	3) Compulsory courses:
Chemistry and Biochemistry: Graduate Faculty	63-581 . Theoretical Foundations of Nursing 63-582 . Advanced Statistics 63-583 . Research Methods in Nursing 63-599 . Clinical Judgment in Nursing
• Chemistry and Biochemistry: Programs	and either 63-584 and 63-586 , or 63-588 and 63-590 , depending on the selected area of focus.
• Chemistry and Biochemistry: Courses	4) Clinical Judgement in Nursing Practice will involve one term of full-time study in a setting selected in consultation with the student. Students will select individuals, families, groups, populations and/or communities in various health care facilities, and/or community settings, to develop their knowledge and skill for advanced nursing practice.
Communication Studies: Graduate Faculty	5) Major project/paper students will select two graduate electives in nursing or related disciplines. Courses will be selected according to the student's research interests.
• Communications Studies: Programs	6) All candidates' programs are subject to approval by the graduate coordinator.
• Communication Studies: Courses	7) The minimum grade required in all graduate courses is B-. Any student who does not successfully complete a course may repeat it once at the discretion of the Dean of the Faculty of Nursing and the Dean of Graduate Studies and Research. The student may not repeat more than one course.
Computer Science: Graduate Faculty	8) The maximum time limit is five years.
• Computer Science: Programs	9) Students of the Faculty of Nursing are required to demonstrate behaviours consistent with the "Professional Standards for Registered Nurses and Registered Practical Nurses, Standards for the Therapeutic Nurse-Client Relationship and the Ethical Framework for Nurses in Ontario" of the College of Nurses of Ontario, and "Explanation of Professional Misconduct" of the College of Nurses of Ontario," and the academic policies of the University of Windsor.
• Computer Science: Courses	Failure of any Nursing student to conform to the principles of these documents may result in dismissal from any of the Faculty of Nursing's programs.
Earth Sciences: Graduate Faculty	The Master's thesis committee is chosen in the manner described in 1.6.2 of this Graduate Calendar. The final examination will be conducted by the Master's committee.
• Earth Sciences: Programs	Students choosing a major project/paper must have a detailed proposal approved by at least two nursing faculty members, one of whom will serve as the primary advisor. The
• Earth Sciences: Courses	

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Electrical Engineering: Graduate Faculty

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Engineering Materials: Graduate Faculty

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Areas of Specialization
- Engineering Materials:
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Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

approved proposal application form must be submitted to the Dean of the Faculty of Nursing in order to register for the major project/paper. The major project/paper committee will conduct the final oral examination.

Each student must obtain approval of his or her program in writing, from the graduate coordinator, within three weeks of registration. Subsequent changes require written approval from the graduate coordinator.

THE MASTER OF NURSING DEGREE

Admission Requirements

The program admission requirements for the course-based master's program (MN) are the same as the requirements for the Master of Science Program (M.Sc.). All general regulations of Graduate Studies and Research are applicable.

Program Requirements

It should be noted that the two areas of concentration: Human responses and adaptations to alterations in health of individuals, families and groups to acute and chronic illness and Health promotion and illness prevention in selected populations are the same as the M.Sc. program.

Total courses: Ten (10) courses

Major requirements: Students in the course-based master's (MN) must take the same six (6) compulsory courses required of students in the Master of Science Program (MSc):

63-581. Theoretical Foundations of Nursing
63-582. Advanced Statistics
63-583. Research Methods in Nursing
63-599. Clinical Judgment in Nursing

and either 63-584 (Human Responses and Adaptation to Alterations in Health I) and 63-586 (Human Responses and Adaptation to Alterations in Health II).

or 63-588 (Health Promotion and Illness Prevention through the Life Cycle I) and 63-590 (Health Promotion and Illness Prevention through the Life Cycle II).

Other requirements: Students are required to take four elective courses, at least two of which must be nursing. Nursing electives may be selected from any of the following six existing elective nursing courses:

63-570. Counselling Process in Nursing
63-572. Women and Health
63-574. Organizational and Management Theories Relevant to Health Care Organizations
63-576. Management of Resources in Nursing
63-578. Seminar in Current Nursing Issues
63-580. Selected Readings in Nursing

Two graduate course electives from other disciplines.

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Mechanical Engineering:
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Areas of Specialization
- Mechanical Engineering:
Courses

English: Graduate Faculty

- English: Programs
- English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

- History: Programs
- History: Courses

Faculty of Human Kinetics:
Graduate Faculty

- Kinesiology: Programs
- Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

- Mathematics and Statistics:
Programs
- Mathematics and Statistics:
Courses

Course Sequencing

YEAR I

Fall Semester

63-581. Theoretical Foundations of
Nursing
63-583. Research Methods In Nursing

Winter Semester

63-582. Advanced Statistics
63-584. Human Responses & Adapta-
tions to Alterations in Health I
or
63-588. Health Promotion & Illness Pre-
vention Through the Life Cycle I

Summer Semester

Nursing/Open Elective(s)

YEAR II

Fall Semester

Nursing/Open Elective
63-586. Health Responses and Adaptations to Alterations in Health II
or
Health Promotion and Illness
Prevention Through the Life Cycle II

Winter Semester

63-599. Clinical Judgment in Nursing
Practice

Summer Semester

Nursing/Open Elective(s)

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Faculty

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Philosophy: Graduate Faculty

- Philosophy: Programs
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Physics: Graduate Faculty

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Political Science: Graduate
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Psychology: Graduate Faculty

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NURSING: COURSE DESCRIPTIONS

Not all of the courses listed below will necessarily be offered in any one year.

63-554. Evidence-Based Practice (EBP) for Advanced Practice Nursing (APN)

This course provides students with the knowledge and skills required to identify and use best evidence in advanced practice roles. The course focuses on developing a relevant evidence-based practice question, and searching appropriate evidence resources. Frameworks for the critical appraisal of quantitative and qualitative studies will be critiqued. Issues related to influencing practice and health outcomes through evidence, at the level of the individual practitioner and the health care organization, are addressed. This course will explore paradigms and theories that inform knowledge development and knowledge transfer. The foci of the course are the exploration, critical analysis, and application of concepts. Challenges and strategies related to addressing complex health care system issues through evidence, at the level of the individual practitioner and the health care organization, are addressed. (Prerequisites: 63-581 and 63-583.)

63-556. Research Utilization Project: Evidence Based Decision Making in Health Care: Integrating Knowledge into Advanced Practice

This course provides students with the knowledge and skills required to identify and use best evidence in advanced practice roles. The course focuses on developing a relevant evidence based practice question, and searching appropriate evidence resources. Frameworks for the critical appraisal of quantitative and qualitative studies will be critiqued. Learning is facilitated through seminars, and workshops to address a question emerging from their own practice. Issues related to influencing practice, and health outcomes through evidence, at the level of the individual practitioner and the health care organization are addressed. (Prerequisite: COUPN Primary Health Care Nurse Practitioner Certificate)

63-570. Counselling Process in Nursing

Development and refinement of counselling skills with an emphasis on human relationships and nursing strategies that facilitate health. Experiential learning will be implemented to bring a balance between counselling theory/research and applied counselling knowledge

63-572. Women and Health

An analysis of health issues of Canadian women from a holistic woman-centered perspective to include geographical, sociocultural and political variables that impact women's health

63-574. Organizational and Management Theories Relevant to Health Care Organizations

Theories and concepts relating to health care organizations will be studied. The impact of internal and external forces on health care delivery systems will be studied.

63-576. Management of Human Resources in Nursing

A study of concepts, theories, and practices that will assist nurse leaders to develop effective approaches to human resource management in nursing education and service settings.

63-578. Seminar in Current Nursing Issues

Faculty

• Biological Sciences: Programs

An historical and futuristic examination of the critical issues facing the nursing profession and discipline. Considering the practice orientation of nursing, students will explore issues related to education, practice, discipline, and professionalism.

• Biological Sciences: Courses

63-580. Selected Readings in Nursing

Intended for students with a special interest in and knowledge of a specialty area in nursing. To explore theory and research related to human responses and adaptations to alterations in health, or health promotion and illness prevention with selected client populations. (To be taken only with permission of the School.)

Odette School of Business: Graduate Faculty

• Business: Programs

63-581. Theoretical Foundations of Nursing

The focus of this course is theory exploration in nursing. Beginning with the theoretical evolution of the discipline of nursing, students progress to issues related to development of theory in a practice discipline. Analysis, evaluation, and comparison are made of selected nursing conceptual models/theories and their major concepts. The contributions of the conceptual models to practice and research are investigated.

• Business: Courses

63-582. Advanced Statistics

An advanced course with a focus on multi-variate analysis. Topics include ANOVA, MANOVA, regression analyses, critique of statistical analyses of research articles, and computer data analysis.

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

63-583. Research Methods in Nursing

Students will examine diverse approaches to scientific inquiry in nursing. Within selected research paradigms, students will explore design, process, and evaluation techniques. Models for research analysis will be explored. Opportunities will be provided for students to develop a research proposal to gain solutions to nursing problems.

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

63-584. Human Responses and Adaptation to Alterations in Health I

With emphasis on nursing assessment, patterns of coping in life situations involving alterations in health will be explored. Theories, concepts, and research related to normative and situational stressors for the individual and family in interaction with the environment will be studied in relation to healthy coping.

• Communication Studies: Courses

63-586. Human Responses and Adaptation to Alterations in Health II

Emphasis on planning, intervening, and evaluating nursing care strategies for promotion of adaptation/coping for individuals, families, groups, and communities. Needs related to age and special populations will be examined in cultural context. Students will analyze social structure features, for example, politics, economics, values which influence resources for healthy coping and adaptation.

Computer Science: Graduate Faculty

• Computer Science: Programs

63-588. Health Promotion and Illness Prevention Through the Life Cycle I

Students will examine theories and research related to processes which result in both positive and negative changes in health and well-being for individuals within the context of families and communities. Interactional patterns of nurses and clients in promoting clients' right to health will be explored. The role of the nurse as client advocate will be emphasized.

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

63-590. Health Promotion and Illness Prevention Through the Life Cycle II

Health promotion and illness prevention for complex populations will be analyzed, with an emphasis on strategies for nursing intervention to facilitate positive health outcomes. Health issues related to gender, life-cycle, and culture will be included, with examination of related theory and research.

• Earth Sciences: Courses

63-598 - Clinical Project in Nursing Practice

Students will select an area of clinical interest and will develop skills in the application of nursing theories, evaluation and research. Using their expanded theoretical base and appropriate interventions, students will develop a comprehensive project that will

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Specialization

benefit individual clients, families, groups, populations and/or communities, which will be implemented in China. (Open only to students in the MN (International Cohort).)

63-599. Clinical Judgment in Nursing Practice

Students will select an area of clinical interest and apply theories and research in a practice setting. Using their expanded theoretical base, students will conduct comprehensive assessments of clients (individuals, families, groups, populations and/or communities) and will implement appropriate intervention strategies and evaluation protocols. Students will validate their conceptual model of nursing care.

63-796. Non-Thesis Option

An expansion and extension of course work in which students working with a faculty advisor will choose a major project/paper. Students must provide evidence of synthesis of previous course work relative to a selected health issue or area such as clinical practice, teaching or administration.

63-797. Thesis Option

Before writing the thesis, the student must meet with the Master's committee to obtain approval of the thesis investigation. Permission will only be granted when the student has shown sufficient preparation and competence to carry out the thesis proposal. Upon completion, each candidate will be required to make a satisfactory oral presentation and defense of the thesis.

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Psychology: Graduate Faculty

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PHILOSOPHY

GRADUATE FACULTY

Professors Emeriti

Pinto, Robert C; B.A., M.A., Ph.D. (Toronto)-1963.

Johnson, Ralph Henry; B.A. (Xavier), M.A., Ph.D. (Notre Dame), F.R.S.C.-1966.

Blair, John Anthony; B.A. (McGill), M.A. (Michigan)-1967.

Professors

Cook, Deborah; B.A., M.A. (Ottawa), Doct. 3e cycle (Sorbonne)-1989.

Tindale, Christopher W.; B.A. (Wilfrid Laurier), M.A., Ph.D. (Waterloo)-2006.

Associate Professors

Hansen, Hans V.; B.A. (Lakehead), M.A. (Manitoba), Ph.D. (Wayne State)-2001.

Noonan, Jeffrey; B.A. (York), M.A., Ph.D. (McMaster)-2001.

Assistant Professors

Rose, Philip; B.A. (Memorial), M.A., Ph.D. (Queen's)-2002.

Guarini, Marcello; B.A. (Windsor), M.A., Ph.D. (Western Ontario)-2002.

Hundleby, Catherine Elisabeth; B.A. (Toronto), M.A. (Guelph), Ph.D. (Western Ontario)-2003.

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Philosophy (MA)

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THE MASTER OF ARTS DEGREE

[Statistics Canada Disclaimer](#)

General Nature of the Program

[Important Dates: 2007-08](#)

The aim of the program is to give students the opportunity to deepen their philosophical understanding both by broadening their undergraduate background and/or by allowing them to concentrate their studies in one of the two specific areas of focus in our program. The first area is informal logic, the theory of argument, and the theory of critical thinking; the second is twentieth-century continental philosophy. It is expected that theses and major papers will be written in one of these two areas. The possibility of concentrating in some other area exists, but is conditional upon staffing resources, which are subject to change. The Philosophy M.A. program is structured in such a way as to encourage maximum participation by students in seminars and to allow extensive contact with professors outside of formal class time.

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Admission Requirements

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See 1.6.1 for general requirements for admission into an M.A. program at the University of Windsor. The Philosophy program normally requires the equivalent of twenty one-term courses in philosophy for admission to the one-year Master's program and the equivalent of ten one-term courses in philosophy for admission to the two-year Master's program.

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Program Requirements

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For general requirements for the Master's degree, see 1.6.2. The following are particular requirements for the M.A. in Philosophy:

[The Master's Degree](#)

1) The student may proceed to the degree in any one of the following ways:

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(a) successfully complete at least four and not more than six graduate courses (the fifth and sixth courses may be in a cognate field), and satisfactorily complete a thesis on which there shall be an oral examination;

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(b) successfully complete six courses, two of which may be in a cognate field, and satisfactorily complete a major research paper on which there shall be an oral examination;

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(c) successfully complete eight courses, two of which may be in a cognate field.

Note:

- i. Students wishing to pursue Ph.D. studies are advised to take option (a) or (b), but not (c).
- ii. Students choosing option (c) should recognize that students in their candidate year

Faculty	normally take two graduate courses each term and that it will take more than one year to complete their program.
• Biological Sciences: Programs	2) All students proceeding to the degree must:
• Biological Sciences: Courses	(a) include the Departmental Seminar (Philosophy 34-590) among their courses for the degree; (b) successfully complete the Master's Examination in Philosophy.
Odette School of Business: Graduate Faculty	3) M.A. Qualifying Year: Students at the I Master's level are required to take 34-491 (Honours Seminar) (see 4.16.3 of the Undergraduate Calendar).
• Business: Programs	4) Program Approval: Each student must have his or her projected program authorized by the Graduate Coordinator.
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GROUP A

In a given academic year at least one course will be offered which will deal with a certain problem or set of problems of concern to contemporary philosophers in the following areas:

34-520. Ethical Theory

34-521. Political Philosophy

34-525. Topics in Practical and Applied Ethics

34-540. Philosophy of Religion

34-541. Philosophy of Science

34-544. Aesthetics

34-550. Epistemology

35-551. Metaphysics

34-552. Philosophy of Mind

34-561. Theory of Argument

34-562. Theory of Informal Fallacies

34-563. Theory and Teaching of Critical Thinking

34-565. to 34-569. Advanced Seminar: Selected Topics in Philosophy

GROUP B

In a given academic year there will be an intensive study of a philosopher or philosophical issue from one or more of the following periods:

34-570. Greek Philosophy

34-573. Seventeenth-Century Philosophy

34-574. Eighteenth-Century Philosophy

34-575. Nineteenth-Century Philosophy

34-576. Foundations of Existentialism

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• Biological Sciences: Programs	34-578. Twentieth-Century Anglo-American Philosophy
• Biological Sciences: Courses	34-580. to 34-584. Advanced Seminar: Selected Topics in the History of Philosophy

GROUP C

The following course must be taken by all M.A. students:

Odette School of Business: Graduate Faculty	34-590. Departmental Seminar: The History of Philosophy in Perspective
• Business: Programs	The aim of the seminar is to deepen students' sensitivity to the history of philosophy and help prepare them for the Master's examination in Philosophy. Each year a specific philosophical theme is traced through a number of key figures in the history of thought.
• Business: Courses	

GROUP D

Chemistry and Biochemistry: Graduate Faculty	34-796. Major Paper
• Chemistry and Biochemistry: Programs	34-797. Thesis
• Chemistry and Biochemistry: Courses	<i>Note:</i> Students may receive credit for more than one course offered in Groups A and B provided that the emphasis is sufficiently different. Thus, for example, credit may be received for both " 34-570 Greek Philosophy: Plato" and " 34-570 Greek Philosophy: Aristotle" where these are entirely distinct course offerings.

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PHYSICS

GRADUATE FACULTY

Professors Emeriti

Krause, Lucjan; B.Sc. (London), M.A., Ph.D. (Toronto), D.Sc. (London; Nicholas Copernicus), F.Inst.P.-1958.

Czajkowski, Mieczyslaw; M.Sc., D.Sc. (Nicholas Copernicus)-1967.

Schlesinger, Mordechai; M.Sc., Ph.D. (Jerusalem), F.Inst.P.-1968.

University Professors

Baylis, William Eric; B.S. (Duke), M.S. (Illinois), D.Sc. (Technical U. of Munich)-1969.

Drake, Gordon W. F.; B.Sc. (McGill), M.Sc. (Western Ontario), Ph.D. (York), F.Inst.P., F.R.S.C.-1969. (Killam Research Fellow, 1990-1992).

McConkey, John William; B.Sc., Ph.D. (Queen's University of Belfast), F.Inst.P.-1970. (Killam Research Fellow, 1986-1988)

Professors

Atkinson, John Brian; M.A., D.Phil. (Oxford.)-1972.

Maev, Roman G.; B.Sc. (Moscow Physical Engineering Institute), M.Sc. (Moscow Physical Technical University), Ph.D. (Lebedev)-1995.

Associate Professors

Reddish, Timothy John; B.Sc., Dipl. Adv.Stud.Sci., Ph.D. (Manchester)-2003.
Assistant Professors

Maeva, Elena Yu; B.Sc., M.Sc. (Mendeleev Institute of Chemical Technology), Ph.D. (Institute of Chemical Physics, Russian Academy of Science)-2001.

Kedzierski, Wladyslaw; M.Sc., Ph.D. (Jagiellonian University), D.Sc. (Nicholas Copernicus)-2002.

Kim, Eugene Hubert; B.Sc. (Illinois), M.A., Ph.D. (California)-2003.

Rangan, Chitra; B.Sc. (Madras), M.Sc. (Indian Inst. of Technology, Madras), Ph.D. (Louisiana State U)-2003.

Adjunct Professor

Glass, Edward N.; B.S. (Carnegie-Mellon), M.S., Ph.D. (Syracuse)-1974.

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Cross-Appointment

Aroca, Ricardo; B.Sc. (Chile), Ph.D. (Moscow State), D.Sc. (Leningrad)-1985.

Schurko, Robert W.; B.Sc., M.Sc. (Manitoba), Ph.D. (Dalhousie)-2000.

Wang, Jichang; B.Sc. (Tsinghua), Ph.D. (Copenhagen)-2002.

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Admission Requirements

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The basic qualification for admission consists of a Bachelor's degree with adequate specialization in Physics, obtained with first or second class honours or an A or B average. Students with deficiencies may be required to make up these deficiencies by registering in undergraduate courses or by following a program of supervised reading.

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Applicants whose academic credentials are difficult to assess may be required to write the Graduate Record Examination (GRE) administered by the Educational Testing Service. Inquiries should be made at the time of application. Details of the examination may be obtained from the Educational Testing Service, Princeton, New Jersey, U.S.A., 08540.

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THE DOCTOR OF PHILOSOPHY DEGREE

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1) *Period of Study*: A minimum of three years in full-time graduate studies is required. Credit for one of the three years may be given for a Master's degree obtained in Physics at the University of Windsor or for graduate work carried out at another institution. Not more than seven years should elapse between registration and completion of the requirements for the degree; an extension of this period may be granted only on recommendation from the program coordinator and approval by the Faculty of Graduate Studies and Research.

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2) *Course Work*: Candidates with Master's degrees in Physics (or equivalent) will complete a minimum of four graduate courses, including [64-610](#), and at least two other courses at the 600 level. Any additional graduate courses to fulfill the course requirement must be approved by the Department. Candidates must also take [64-550](#) and [64-551](#) if previous equivalent credit has not been obtained.

[The Master's Degree](#)

Candidates who do not have a Master's degree in Physics (or equivalent) will complete a minimum of eight graduate courses which must include [64-510](#), [64-520](#), [64-550](#), [64-551](#), [64-610](#), and at least two other courses at the 600 level. Any additional graduate courses to fulfill the course requirement must be approved by the Department.

[Research Institutes](#)

3) *Doctoral Committee*: Within one month after registration each student will be assigned to an advisory committee consisting of a research advisor and two other faculty members in Physics.

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This committee will, from time to time, review the student's progress (see 1.5.2).

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For the defense of dissertation (final oral examination) the advisory committee will be supplemented by one professor from outside Physics and an external examiner who, as

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an expert in the field of physics in which the candidate's research is carried out, will appraise the dissertation and ordinarily will also be present at the final oral examination.

4) *Dissertation*: In order to qualify for the degree each candidate must present a dissertation embodying the results of an original investigation in a branch of physics. Graduate courses form an important but subsidiary part of the program.

The candidate, when requested, shall submit to the chief advisor from time to time portions of the dissertation and a complete draft on a date specified by the advisor, and place four typewritten copies of the completed dissertation in the hands of the advisor at least six weeks before Convocation. Rules governing binding, quality of paper, etc., of the dissertation can be found in Procedures to Follow in Preparing a Thesis or Dissertation (see 1.5.3).

5) *Examinations*: In addition to the examinations in the courses, all candidates must pass qualifying examinations covering the general field of physics at the level of the honours program given at this university. The examinations must be passed after the completion of the M.Sc. degree, not later than one year after registration as a graduate student proceeding to the Ph.D. Other examinations (written or oral) may be set at the discretion of the program coordinator.

Each candidate will, on recommendation of the advisory committee, submit to a final oral examination in defense of the dissertation.

THE MASTER OF SCIENCE DEGREE

Program Requirements

1) The requirements for the degree of Master of Science may be satisfied by pursuing a program of studies consisting of:

- (a) at least four graduate courses and a thesis; or
- (b) at least six graduate courses and a major paper; or
- (c) not less than eight graduate courses.

2) [64-510](#), [64-520](#), [64-550](#) and [64-551](#) will be required of all candidates.

Candidates proceeding to the M.Sc. by either of the above options may include in their program, with the approval of the program coordinator, two undergraduate courses.

3) Candidates who are proceeding to the M.Sc. by course work alone may be permitted to include in their programs four courses in Mathematics.

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Not all of the courses listed below will necessarily be offered in any one year.

64-510. Seminar for M.Sc. Students

In order to receive credit for this course, a student should attend the weekly departmental seminar throughout M.Sc. studies and present a minimum of one seminar on a topic approved by the Seminar Coordinator.

64-520. Classical Electrodynamics

Radiation by moving charges, synchrotron radiation, bremsstrahlung, scattering of radiation, multipole fields, radiation reaction.

64-540. Theory of Particle Scattering

Classical theory of scattering. Formal quantum theory. The definitions of cross sections, transition probabilities and related concepts. The Born approximation, phase shifts.

64-542. Atomic and Molecular Processes I

Atomic/molecular beam methods and techniques. Collision phenomena in atomic and molecular scattering, including elastic, inelastic and reactive scattering, excitation, ionization, and charge exchange. Detailed discussion of the experimental results and their interpretation in terms of interatomic/ molecular forces and potentials.

64-543. Atomic and Molecular Processes II

A variety of topics in electron and photon collisions highlighting current advances in these fields and including total and differential elastic and inelastic scattering of electrons and positrons, resonances, polarization, coherence and correlation effects, post-collision interactions, photon-stimulation spectroscopy. (Prerequisite: [64-542.](#))

64-544. Theory of Atomic Structure and Atomic Spectra

Rotation matrices, $3n-j$ coefficients and graphical techniques for angular-momentum coupling, irreducible tensor operators, the Wigner-Eckart theorem and applications, the density matrix, interactions of atoms with external fields.

64-546. Molecular Spectroscopy

Diatomic molecules, Born-Oppenheimer approximation, adiabatic potentials, Hund's coupling cases, rotational, vibrational, and electronic states and associated spectra. Applications of group theory to the structure and spectra of polyatomic molecules.

64-550. Advanced Quantum Theory I

General principles, representations and transformation theory. Approximation methods. Many-body problems and identical particles.

64-551. Advanced Quantum Theory II

Number representations and second quantization. Dirac equation. An introduction into quantum electrodynamics and the electro-weak theory. (Prerequisite: [64-550.](#))

64-560. Solid State Physics I

Application of group theory to condensed matter physics: the study of point groups, Bravais lattices and space groups. Inverse lattice with applications to scattering phenomena.

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Computer Science: Graduate
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Earth Sciences: Graduate
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64-563. Special Topics in Physics

Advanced topics in contemporary physics not normally covered in other courses. (May be repeated when the topic is different.) (Prerequisite: consent of instructor.)

64-574. General Theory of Relativity

The principle of equivalence, general co-variance. Riemann spacetime Einstein field equations.

64-581. Theory and Applications of Thin Films

Definition of thin films and their classification; methods of preparation; elements of high-vacuum technology; thin-film formation, structure and methods of investigation; mechanical, optical, electrical properties of thin films and their application in modern technology.

64-584. Design and Application of Lasers

Stimulated emission, rate equation approach to amplification and output power calculations; Gaussian beams, stable and unstable resonators; Q-switching, mode-locking and cavity-dumping; ruby, Nd:YAG and other solid state lasers; semi-conductor, gas and dye lasers.

64-585. Atmospheric and Environmental Physics

Physics of the atmosphere, general description and layering, interactions of incoming and outgoing radiations, greenhouse effect, atmospheric thermodynamics and stability, cloud physics, atmospheric dynamics, gravity waves and turbulence, atmospheric photochemistry, ozone layer, upper atmosphere, plasma and hydromagnetic effects, ionosphere, air glow and aurora.

64-587. Applications of Electron, Ion and Atomic Beams

Non-relativistic theory of charged particles in electric and magnetic fields. Review of matrix optics, electrostatic lenses, magnetic lenses, electrostatic and magnetic vector fields. Applications to energy and mass analysis. The Liouville Theorem and its consequences. Dense electron beams and applications.

64-610. Seminar for Ph.D. Students

In order to receive credit for this course, a student should attend the weekly departmental seminar throughout Ph.D. studies and present a minimum of two seminars on topics approved by the Seminar Coordinator.

64-612, 64-613. Selected Topics in Theoretical and Experimental Physics

These courses consist of two survey lecture series to be selected from among several which will be offered each year. Each lecture series lasts for approximately half a term. Credit may not be obtained for any survey courses in subjects in which the student has taken another graduate course.

64-630. Statistical Physics I

Review of thermodynamics; information theory. The many-body problem in quantum mechanics, particle number representation. Statistical (density) matrix. The perfect gas, real gases, dense plasma, applications.

64-631. Statistical Physics II

The theory of macroscopic quantum phenomena. (Prerequisite: [64-630](#).)

64-640. Elementary Particles and Their Symmetries

Symmetries and conservation laws, group representations, and particle multiplets; Lie groups and algebras; generators and weights of $SU(n)$; the quark model; quantum chromodynamics; electro-weak interaction theory; supersymmetry; path integrals and Feynman diagrams.

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64-650. Classical and Quantum Field Theory I

Variational principles and conservation laws and applications, field equations and their solutions. (Prerequisite: [64-551](#).)

64-651. Classical and Quantum Field Theory II

Quantization of fields; scalar, vector, and spinor fields. Quantum electrodynamics and applications; renormalization and radiative corrections. (Prerequisite: [64-650](#).)

64-660. Advanced Topics in Condensed Matter Physics

Crystal field theory in the weak and strong coupling schemes. Molecular orbitals; vibronic interactions. Electronic structure and spectra of molecular complexes. (Prerequisite: [64-551](#).)

64-796. M.Sc. Major Paper

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Physics: Graduate Faculty

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Political Science: Graduate
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Psychology: Graduate Faculty

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Social Work: Graduate
Faculty

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Sociology: Graduate Faculty

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POLITICAL SCIENCE

GRADUATE FACULTY

Professors

Amore, Roy C.; B.A. (Ohio), B.D. (Drew), Ph.D. (Columbia)-1970.

Brooks, Stephen; B.A., M.A. (Windsor), Ph.D. (Carleton)-1985.

Associate Professors

Lee, Martha; B.A., M.A. (Calgary), Ph.D. (Syracuse)-1992.

MacIvor, Heather; B.A. (Dalhousie), M.A., Ph.D. (Queen's)-1992.

Sutcliffe, John; M.A. (Edinburgh), M.A. (Calgary), Ph.D. (Cambridge)-2000.

Najem, Tom; B.A., M.A. (Windsor), Ph.D. (Durham)-2002.

Assistant Professors

Miljan, Lydia; B.A., M.A., Ph.D. (Calgary)- 2001.

Richter, Andrew; B.A., M.A. (Carleton), Ph.D. (York)-2001.

Lanoszka, Anna; B.A. (Carleton), M.A., Ph.D. (Dalhousie)-2002.

McIntyre, Chris; B.A., M.A. (Windsor), Ph.D. (North Texas)-2003.

Donais, Timothy; B.J. (Carleton), M.A., Ph.D. (York)-2004.

Essex, Jamey; B.A. (Kentucky), M.A., Ph.D. (Charles University)-2005

Faculty

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Chemistry and Biochemistry:
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Communication Studies:
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Computer Science: Graduate
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**Political Science (MA)
Master of Arts in Political Science and Master of Public Policy Articulation**

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THE MASTER OF ARTS DEGREE

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Admission Requirements

[Important Dates: 2007-08](#)

The normal requirement for admission to the one-year M.A. program is an honours degree or combined honours degree in Political Science, or an honours degree in a related discipline, such as International Relations, with a B+ average. Honours graduates in fields other than these will be considered on the basis of their academic background and standing. Those with less than a four-year degree, or with minor deficiencies, will be required to take additional courses, or to enter a two-year program (see 1.3.3).

[Faculty of Graduate Studies
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Program Requirements

[Programs Offered - Overview](#)

After completion of the student's first full term of study (normally 3 graduate courses), the Graduate Committee will evaluate the student's progress and research proposal. On the recommendation of that Committee the student will then complete their degree on one of two paths:

[Application Procedures](#)

(a) *The Major Paper*: This path requires students to complete successfully three further graduate courses, and a major paper approved by the student's examining committee. The Paper will be written under the direction of a committee normally composed of two Political Science faculty members. It is expected that students will register full-time and complete the program in three semesters.

[Faculty Regulations](#)

(b) *The Thesis*: This path requires students to successfully complete one further graduate course, and a thesis approved by the student's examining committee. The thesis will be written under the direction of a committee composed of two Political Science faculty members plus a member outside Political Science, but from within the University. An oral defence of the thesis is required (see 1.6.2). There is no formal due date for a thesis, however, it is expected that students will register full-time and complete the program in three semesters.

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All students in the I Master's (Qualifying) year must normally carry a full load of ten undergraduate courses or their equivalent.

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UNIVERSITY OF MICHIGAN (DEARBORN) MASTER OF PUBLIC POLICY (MPP) (ARTICULATION AGREEMENT)

[General Courses, FGSR](#)

The articulation agreement will enable students in the Political Science Masters program to receive transfer credit for their graduate political science courses towards the University of Michigan (Dearborn campus) Master of Public Policy program.

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Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

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Students will be admitted separately into the two programs, through a joint admissions committee, but will complete the degrees concurrently.

For additional information, contact the Faculty of Political Science.

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POLITICAL SCIENCE: COURSE DESCRIPTIONS

All courses listed will not necessarily be offered in any given year. Courses are normally two hours a week.

45-500. Scope and Approaches to Political Science

A review of the state of the discipline and a survey of approaches to research. This course is mandatory, as students will focus on their major paper/thesis research design.

45-513. Federalism in Canada

Analysis of selected topics in Canadian federalism. Topics may include: federalism, federal/provincial relations, the social union, and the debate over the future of Quebec in Canada.

45-514. Canadian Politics: Participation and Processes

Analysis of selected topics in Canadian politics. Topics may include: parties, elections, voting behaviour, pressure groups, representation, new social movements, Canadian political theories, ideologies, and public opinion as measured through survey research and communication surveys.

45-521. Canadian Public Policy

A review of the applicability of contemporary theories of public policy-making, policy evaluation, and policy delivery within the context of the Canadian political system. May include a focus on specific areas of public policy.

45-530. Politics in the Developed World

An examination of the political systems of economically developed countries. Topics may include comparative government, managing ethnic conflict, new social movements, democratic development, and the development of international political and economic institutions.

45-534. American Politics and Government

Analysis of selected topics in American politics and government. Topics may be selected from the institutional or behavioural areas of the discipline, or may include a comparative analysis of Canadian and American politics.

45-551. Selected Topics in Contemporary Political Theory

This course explores one or more themes in political theory through discussions and seminar presentations. While the focus is on political themes, the readings might be drawn from other disciplines, e.g., literature, psychology, religion, history, or sociology.

45-560. International Organizations

A theoretical overview of International Organizations; the course will examine why these organizations exist, how they operate, and their impact on international affairs. The course may also focus on specific organizations, for example, the UN, the EU, ASEAN and/or the OAS.

45-561. International Relations Theory

A survey of recent literature on theories and methods in the study of international politics.

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45-563. Canadian Foreign Policy

An examination of selected issues in Canadian foreign policy, chosen for the relevance in driving the contemporary research agenda. Topics may include human security, Canadian defence policy, peacekeeping, and/or Canadian aid and development policy.

45-565. International Security

An examination of selected topics in security. Examples of topics may include inter- and intra-state conflict, different approaches to conflict resolution, the utility of force, the causes of war, non-traditional approaches to security and/or detailed case studies of selected conflicts.

45-566. International Political Economy

Study of the major theoretical perspectives in international political economy as applied to such issues as multinational corporations, trade, and international development.

45-567. Islamic Political Thought

This course examines the rise and development of Islamic political thought from the formative period of Islam (622-661 CE) down to the contemporary era described here as the 'age of fundamentalism' (1920s – present). The focus of the course will revolve around ideas of significant Muslim thinkers, and, where appropriate, look into the political, legal and cultural traditions that provided the contextual milieu of these intellectual contributions. Preference would be given to those with a background in Political Theory and/or Islamic or Middle Eastern Politics.

45-568. The Third World in International Relations

An examination of the theoretical literature on such topics as the foreign policy of third world states, nonstate actors, structural dependence, North-South conflict, and regional integration.

45-588. Selected Topics in Political Science

Topics of current interest selected by the Political Science faculty which may vary from year to year. (May be repeated for credit if offered as a different topic with the permission of the program coordinator.)

45-599. Readings in an Approved Special Field

Intended for students with a special interest in and knowledge of areas not covered in sufficient depth by other courses. (To be taken only with the permission of the program coordinator.)

45-796. Major Paper

45-797. Thesis

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Physics: Graduate Faculty

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Political Science: Graduate
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Psychology: Graduate Faculty

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Social Work: Graduate
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PSYCHOLOGY

GRADUATE FACULTY

Professor Emeritus

Rourke, Byron P.; B.A. (Windsor), M.A., Ph.D. (Fordham), F.R.S.C.-1965. (retired University Professor)

Schneider, Frank W.; B.A. (Ohio Wesleyan), M.S. (Ohio), Ph.D. (Florida)-1968.

Frisch, Giora Ron; B.A. (City University, N.Y.), Ph.D. (Tennessee)-1969.

Associate Professor Emeritus

Shore, Douglas L.; B.A., M.A., Ph.D. (Wayne State)-1985.

University Professor

Page, Stewart; B.A., M.A. (Western On-tario), Ph.D. (Toronto)-1981.

Professors

Cohen, Jerome S.; B.A. (Michigan State), M.A., Ph.D. (Wayne State)-1968.

Orr, R. Robert; B.A. (Valparaiso) M.A., Ph.D. (Iowa)-1969

Lafreniere, Kathryn D.; B.A. (Windsor), M.A., Ph.D. (York)-1991.

Senn, Charlene Y.; B.Sc., M.Sc. (Calgary), Ph.D. (York)-1992.

Cramer, Kenneth M.; B.A., M.A., Ph.D. (Manitoba)-1998.

Paivio, Sandra C.; B.A., M.Ed. (Western Ontario), Ph.D. (York)-1998.

Associate Professors

Porter, James E.; B.A. (Toronto), M.A. (Roosevelt), Ph.D. (Windsor)-1980.

Voelker, Sylvia L.; B.A. (Indiana), M.A., Ph.D. (Wayne State)-1984.

Towson, Shelagh M.J.; B.A. (York), M.A. (Wisconsin), Ph.D. (Waterloo)-1985.

Hakim-Larson, Julie A.; B.S. (Michigan State), M.S. (Eastern Michigan), Ph.D. (Wayne State)-1991.

Menna, Rosanne; B.A. (Brock), M.A., Ph.D. (Toronto)-1998.

Hibbard, Stephen; B.A. (Santa Clara), M.A. (California State), Ph.D. (Tennessee)-2000.

Faculty

• Biological Sciences: Programs

Buchanan, Lori; B.A. (Wilfrid Laurier), M.A., Ph.D. (Waterloo)-2001.

Jarry, Josee L.; B.A. (Sherbrooke), M.Ps. (Montreal), Ph.D. (Toronto)-2001.

• Biological Sciences: Courses

Kuo, Ben C.; B.A., M.Ed. (Toronto), Ph.D. (Nebraska at Lincoln)-2001.

Baird, Anne; B.Sc. (Duke), M.A., Ph.D. (Wayne State)-2003.

Odette School of Business: Graduate Faculty

• Business: Programs

Assistant Professors

Casey, Joseph; B.A. (Windsor), M.A. (Carleton), Ph.D. (Windsor)-2000.

Kwantes, Catherine; B.A. (Calvin College), M.Sc. (Eastern Michigan), M.A., Ph.D. (Wayne State)-2002.

• Business: Courses

Jackson, Dennis L.; B.A., M.A., Ph.D. (Wichita State)-2003.

Chemistry and Biochemistry: Graduate Faculty

Sirois, Fuschia M.; B.Sc. (Hons.), B.A. (Hons.) (Ottawa), M.A., Ph.D. (Carleton)-2003.

• Chemistry and Biochemistry: Programs

Scoboria, Alan; B.A. (Albion College), M.A., Ph.D. (Connecticut)-2004.

Abeare, Christopher A.; B.S. (U. of Michigan, Flint), M.A., Ph.D. (Wayne State)-2005.

• Chemistry and Biochemistry: Courses

Fritz, Patti A.; B.A. (Michigan), M.A., Ph.D. (S.U.N.Y.)-2005.

Pascual-Leone, Antonio; B.A. (York), D.E.A. (Toulouse), Ph.D. (York)-2005.

Communication Studies: Graduate Faculty

Chung-Yan, Gregory A.; B.A. (York), M.A., Ph.D. (Guelph)-2006.

• Communications Studies: Programs

Miller, Carlin J.; B.A. (Lexington), M.Ed. in Spec. Ed. (Nashville), M.Ed. in Ed. Psych., Ph.D. (Georgia)-2006.

• Communication Studies: Courses

Computer Science: Graduate Faculty

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The graduate programs of study are Adult Clinical Psychology, Child Clinical Psychology, Clinical Neuropsychology, and Applied Social Psychology. All graduate students in Psychology are required to comply with the most recent ethical principles, values, and standards of the Canadian Psychological Association and the American Psychological Association, and with the current standards for research with human subjects adopted by the University of Windsor.

Failure of a student to adhere to the principles, values, and standards defined above will constitute sufficient cause to warrant dismissal from the graduate program in Psychology.

THE DOCTOR OF PHILOSOPHY DEGREE

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In addition to the general requirements listed in 1.5, the following requirements must be met by all students proceeding to the Ph.D. degree.

[Application Procedures](#)

Admission Requirements

Applicants with a four year undergraduate psychology degree or its equivalent will be considered for admission.

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Applicants will be assessed with respect to their academic qualifications including grades, Graduate Record Examination (GRE) scores, letters of recommendation, and career-related achievements. GRE scores (Verbal, Quantitative, Analytical, and Advanced Test in Psychology) are required of all students seeking admission to the Department of Psychology. Possession of the minimum academic requirements does not ensure acceptance. Applications for admission must be completed by January 15.

Program Requirements

[The Master's Degree](#)

1) *Master's degree*: The first phase of the doctoral program involves the completion of the Master's degree in the first two years of the program, the requirements for which include a thesis. Further advancement in the doctoral program depends on the quality of performance in fulfilling the requirements for the Master's degree.

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2) *Course Work*: Students must complete successfully a minimum of twelve graduate courses after the honours B.A. or its equivalent. Requirements vary, however, according to areas of specialization. Up to six courses may be accepted for credit from another university. The course work includes a core curriculum involving a general statistical methodology course, a methodology course in the student's area of specialization, and a course in ethical and professional issues in psychology. All students are required to take at least one course that places considerable emphasis on

Faculty

• Biological Sciences: Programs

• Biological Sciences: Courses

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

cultural, cross-cultural, or multicultural issues. All students in the Clinical Program, and students in the Applied Social Program who are planning to become registered psychologists with the College of Psychologists of Ontario, must demonstrate competence in the four core areas of biological bases of behaviour, cognitive bases of behaviour, (or in the case of students in the Applied Social program, cultural bases of behaviour) social bases of behaviour, and the historical and philosophical foundations of psychology. The minimum passing grade in graduate courses is "B-". A student who fails one course may repeat it once at the discretion of the Head of the Department and the Dean of Graduate Studies and Research. The student may not repeat more than one course. If a student has failed two courses, a recommendation will normally be made to the Dean of Graduate Studies and Research that the student be required to withdraw from the program. Together with the above requirements, students must complete an internship. The clinical internship is approximately 2000 hours and the applied social internship is approximately 1000 hours.

3) *Academic Advisor*: Each student is assigned an academic advisor at the beginning of his or her first year of graduate studies.

4) *Doctoral Committee*: Research undertaken as part of a doctoral program is directed by a doctoral committee. The membership of the doctoral committee must be appointed by the Head of the Department and approved by the Executive Committee of the Faculty Council of Graduate Studies and Research. When the student is deemed ready to undertake such research, he or she proposes the name of a research advisor and, in consultation with the proposed advisor, the names of other members of the committee consisting of at least two other members of the Psychology Department and one extra-departmental member of faculty. For the defense of the dissertation, an external examiner will be selected by the doctoral committee, subject to the approval of the Department Head and the Dean of Graduate Studies and Research. The external examiner is from outside of the University of Windsor and is nationally or internationally recognized as having expertise in the area of psychology in which the candidate's research is carried out. The external examiner shall not participate in the direction of the research project, but will appraise the dissertation and ordinarily will be present at the final oral examination (see below, 6).

5) *Dissertation*: The principal requirement for the Ph.D. degree in Psychology is the presentation of a dissertation which embodies the results of an original investigation. The results so presented should constitute a significant and original contribution to knowledge.

6) *Examinations*: In addition to examinations in courses, the student must meet the following requirements:

(a) *Comprehensive Examination*: After completion of all course requirements (with the exception of internship courses), the student must pass a comprehensive examination in his or her area of specialization. Successful completion of the examination admits the student to candidacy for the Ph.D. degree. If a student fails the comprehensive examination, he or she may retake the examination once only at the discretion of the Head of the Department and the Dean of Graduate Studies and Research.

(b) *Final Examination*: Each candidate will, on the recommendation of his or her doctoral committee, submit to a final oral examination in defense of the dissertation.

POSTDOCTORAL CERTIFICATION IN ADULT CLINICAL PSYCHOLOGY

Psychology offers a postdoctoral certification in Adult Clinical Psychology. (Note that postdoctoral certification programs in Child Clinical Psychology or in Clinical Neuropsychology are not offered.) The Postdoctoral Certification Program in Adult Clinical Psychology is designed for psychologists who: a) hold a Doctor of Philosophy degree in Psychology in areas other than clinical psychology; b) have had a minimum

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- Economics: Programs

- Economics: Courses

Faculty of Education:
Graduate Faculty

- Education: Programs

- Education: Courses

Faculty of Engineering:
Programs of Study Overview

Civil and Environmental
Engineering (CEE): Graduate
Faculty

- CEE: Areas of Specialization

- CEE: Courses

Electrical Engineering:
Graduate Faculty

- Electrical Engineering:
Areas Of Specialization

- Electrical Engineering:
Courses

Engineering Materials:
Graduate Faculty

- Engineering Materials:
Areas of Specialization

- Engineering Materials:
Courses

Industrial and Manufacturing
Systems Engineering (IMSE):
Graduate Faculty

- IMSE: Areas of
Specialization

of three years of postdoctoral experience; and c) wish to retrain as clinical practitioners.

Admission Procedures

A committee of three faculty members (including the Adult Clinical Coordinator and the Postdoctoral Certification Program Coordinator) will constitute the admissions committee. Inquiries and requests for application forms should be addressed as follows: Postdoctoral Certification Program Coordinator, Department of Psychology, University of Windsor, Windsor, Ontario N9B 3P4.

Program Requirements

The following courses are required and will be used by the advisory committee as the basis for designing the trainee's program:

46-580. Psychopathology
46-581. Ethical and Professional Issues in Psychology
46-582. Clinical Assessment I
46-583. Clinical Assessment II
46-589. Advanced Adult Assessment
46-674. Introduction to Psychotherapy

and two two-term course sequences in psychotherapy.

In addition to required courses, the Post-doctoral Certification Program requires completion of a 2000-hour clinical internship. Trainees should not expect to complete the program in less than two to three years.

The advisory committee will be composed of three faculty members, including the Adult Clinical Coordinator. The committee will evaluate the specific needs of the trainee and modify the program as necessary to meet individual training needs. The advisory committee is also responsible for guiding the trainee through the program, evaluating the trainee's progress and, ultimately, verifying that the trainee has successfully completed the certification program.

- [IMSE: Courses](#)

[Mechanical Engineering:
Graduate Faculty](#)

- [Mechanical Engineering:
Areas of Specialization](#)

- [Mechanical Engineering:
Courses](#)

[English: Graduate Faculty](#)

- [English: Programs](#)

- [English: Courses](#)

[Environmental Science
\(GLIER\): Graduate Faculty](#)

[ES: Programs](#)

[ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)

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[Faculty of Human Kinetics:
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- [Kinesiology: Programs](#)

- [Kinesiology: Courses](#)

[Mathematics and Statistics:
Graduate Faculty](#)

- [Mathematics and Statistics:
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Courses](#)

Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

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PSYCHOLOGY: COURSE DESCRIPTIONS

All courses listed will not necessarily be offered in any given year. Some courses are restricted to students in the Clinical Program.

46-501. Historical and Philosophical Foundations of Psychology

The origin of modern psychology as a science and profession and the philosophy of science underlying psychology. (3 hours a week.)

46-503. Biological Bases of Behaviour

Basic brain/behaviour relationships are explored in the context of neuro-anatomical and neurotransmitter systems. Traditional theories of brain function are reviewed and current brain modelling techniques are introduced. Individual student presentations or projects based on reviews of specialized brain systems are required. (3 hours a week.)

46-505. Cognitive Bases of Behaviour

Systems and methodologies in areas such as attention, perception, learning, memory and thinking. (3 hours a week.)

46-511. Statistics for Graduate Study in Psychology I

Overview of the general linear model (univariate case) covering statistical analyses used to analyze data from experiments as well as to analyze observational data. Topics will include analysis of variance including between subjects and repeated measures factorial designs, random effects and various mixed designs. Both linear and logistic regression techniques will be covered including vector coding and continuous variable interactions, as well as other extensions. (3 lecture hours, 1 laboratory hour a week.)

46-512. Statistics for Graduate Study in Psychology II

Overview of the general linear model (multivariate case) including classical methods such as canonical correlation analysis, discriminant analysis, multivariate analysis of variance, and exploratory factor analysis. Other topics may include methods of addressing missing data, loglinear modeling, and confirmatory factor analysis. (Prerequisite: [46-511](#).) (3 lecture hours, 1 laboratory hour a week.)

46-513. Advanced Multivariate Analysis

Topics covered: path analysis; structural equation modeling, including confirmatory analysis; and, clustering methods. Other topics may include hierarchical linear modeling and latent growth modeling; multidimensional scaling, latent partition analysis and other related nonparametric techniques. (Prerequisite: [46-512](#) or consent of instructor.) (3 hours a week.)

46-514. Research Methods in Clinical Psychology

Review of research values and issues in clinical psychology; survey and evaluation of common research designs and strategies in psychopathology, personality, and psychotherapy. (Prerequisite: [46-512](#).) (3 hours a week.)

46-516. Applied Psychological Measurement

The basic principles of measurement and how they are applied in the construction and evaluation of surveys, tests, and scales will be covered. Also examined will be special problems characteristic of various approaches to measurement, such as the role of sampling in survey work. (Prerequisite: [46-512](#).) (3 hours a week.)

Faculty

• Biological Sciences: Programs

• Biological Sciences: Courses

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

46-517. Qualitative Methods

This course examines the theory, methods, and inference of qualitative inquiry and includes practical application. Topics to be covered include the historical and theoretical roots of qualitative inquiry, ethics and a range of specific methods which may include interviewing, biography and case study, ethnography, grounded theory, archival and historical methods, and Q-Methodology. (3 seminar hours a week.)

46-519. Advanced Developmental Theory and Research Methods

Provides an overview of research designs and methodological issues in the context of contemporary child psychology research and developmental theories. Students conduct a literature review and design a research project in preparation for fulfilling the programs's thesis and dissertation requirements (Prerequisite: enrollment in the Clinical Program.) (3 hours a week.)

46-529. Structure and Function of the Brain

An in-depth study of selected neuro-anatomical and biochemical systems. (3 hours a week.)

46-530. Neuropathology and Neurological Diagnosis

A critical survey of research findings in neuropathology, emphasizing the diagnostic significance of such data. (Prerequisite: [46-529](#).) (3 hours a week.)

46-540. Developmental Psychopathology

Review and analysis of developmental theories and research describing normal and abnormal development across the life course. (3 seminar hours a week.)

46-541. Cognitive Development

Review and comparison of major theoretical positions in cognitive development and a consideration of research generated from these theories. (3 hours a week.)

46-542. Emotional Development

An examination of emotional development from infancy through the adult years. Topics include an overview of cognitive-affective theories and research on developmental change in emotions and self-regulation strategies, and cultural variations in displays of emotional expression and control in families. (3 seminar hours a week.)

46-543. Social Development

An examination of theories of the socialization process and research findings concerning social development in children. (3 hours a week.)

46-560. Theory and Research in Social Psychology

A review of research design and methodology in social psychology, in the context of social psychology theory. Students will develop proposals for research projects. (3 seminar hours a week.)

46-566. Program Evaluation

An examination of theory, research, and analytical methods appropriate to the planning, design, implementation, and utilization of program evaluation in education, social, business and other organizational settings. (3 hours a week.)

46-572. Personality, Health, and Well-Being

A survey and critical analyses of historical and contemporary theoretical perspectives on the role of personality in physical and psychological well-being. General topics may include the contribution of personality to physical health and illness, the role of personality in stress and coping, the links among personality, health, and well-being across the adult lifespan, and issues related to the assessment of personality and well-being. (3 seminar hours a week.)

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education:
Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering:
Programs of Study Overview

Civil and Environmental
Engineering (CEE): Graduate
Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering:
Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials:
Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing
Systems Engineering (IMSE):
Graduate Faculty

- IMSE: Areas of
Specialization

46-573. Stress, Coping, and Resilience

A survey of current theory and research on psychosocial stress and coping processes, with a particular focus on factors that contribute to stress resiliency. Topics include personal, social, organizational, and societal sources of stress and their effects on physical and mental well-being, and the intrapersonal, interpersonal, and external resources that individuals and communities draw upon to cope with stress.

46-575. Psychology of Women

A survey of psychological research and theoretical approaches to the study of women past and present. The course will focus on one topic within the field in considerable detail (e.g., violence against women, women and "mental health"), or will cover feminist research and theory in psychology more generally, using a number of topics as exemplars. Inclusion of the perspectives of diverse groups of women is ensured through the course material and discussion. (3 hours a week.)

46-577. Ethical Issues in Applied Psychology

This course will provide an overview of ethics and standards in psychological practice and research. Ethical issues in academic, clinical, community and organizational settings will be examined, and feminist and cross-cultural approaches to ethical issues will be considered. (Antirequisite: [46-581](#).)

46-580. Psychopathology

Seminar on issues, diagnostic categories, etiological perspectives, and research in psychopathology in adults, adolescents, and children. The laboratory section involves training and role playing in diagnostic interviewing. Issues relevant to the clinical understanding of different groups will be discussed. (3 hours a week.)

46-581. Ethical and Professional Issues in Clinical Psychology

Ethics and standards of psychological practice and research are reviewed. Legislation, privileged communication, confidentiality, informed consent, private practice, patient rights and sexism are among the topics discussed. (Anti-requisite: 46-577.) (3 hours a week.)

46-582. Clinical Assessment I

An introduction to clinical psychological assessment. Emphasis is on the cognitive, achievement, and adaptive functioning of children, adolescents, and adults. Topics and activities include: basic psychometrics; interviewing; the construction, selection, evaluation, and use of ability tests; behavioural observations; case formulation; report writing; and an introduction to neuropsychological assessment. Attention is given to the assessment of individuals from cultural and linguistic minority backgrounds and to the assessment of those with disabilities. Students practice the administration, scoring, and interpretation of tests; practice interviewing; develop basic report writing skills; and conduct at least one cognitive assessment of an adult and a child. (Prerequisite: enrollment in Clinical Psychology program.) (3 seminar, 3 laboratory/practicum hours a week.)

46-583. Clinical Assessment II

Development of knowledge and skills in the assessment of psychopathology and personality in children, adolescents, and adults; evaluation of the clinical utility and psychometric properties of major personality instruments. The focus is on objective personality assessment, with an introduction to projective techniques. Students build on the skills developed in [46-582](#); practice the administration, scoring, and interpretation of tests, case formulation, and report writing; and conduct at least one clinical evaluation. Attention is given to non-normative aspects of personality and psychopathology assessment of individuals from cultural and linguistic minority backgrounds and to assessment of those with disabilities. (Prerequisite: [46-582](#).) (3 seminar, 3 laboratory/practicum hours a week.)

46-586. Behavioural Pharmacology

- IMSE: Courses

Mechanical Engineering:
Graduate Faculty

- Mechanical Engineering:
Areas of Specialization

- Mechanical Engineering:
Courses

English: Graduate Faculty

- English: Programs

- English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

- History: Programs

- History: Courses

Faculty of Human Kinetics:
Graduate Faculty

- Kinesiology: Programs

- Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

- Mathematics and Statistics:
Programs

- Mathematics and Statistics:
Courses

A review and comparison of the major pharmacological agents utilized clinically to affect changes in human behaviour. (3 hours a week.)

46-588. Multicultural Issues in Clinical Practice

An overview of the field of multicultural counseling and psychotherapy and, to a lesser extent, the field of cross-cultural psychology. The course surveys multicultural research, theories, practices, ethical issues, and assessment, and aims to facilitate students' multicultural competency in terms of cultural awareness, knowledge, and skills. A strong emphasis is placed on students' self-examination of personal cultural values and identities, and the impact these variables might have on their clinical work with clients or patients. (3 seminar hours a week.)

46-589. Advanced Adult Assessment

Advanced training in the clinical assessment of adults, with an emphasis on projective techniques, assessment integration, case formulation. and evaluation for specific needs (eg., psychotherapy, pharmacological referrals, differential diagnosis, employee assistance, and general consultation and referral). Attention is given to the assessment of individuals from cultural and linguistic minority backgrounds and of those with disabilities. Students develop and discuss comprehensive clinical presentations based on case samples. (Prerequisite: [46-583](#); Co-requisite: [46-701](#).)

46-604. Special Projects in Psychological Research

Provides the opportunity for a student to work on an independent research project under the supervision of a faculty member. Requires consent of instructor and Graduate Program Chair. May be taken for a maximum of two terms.

46-606. Special Topics in Psychology

Seminar format provides an opportunity to study in an area not covered in sufficient depth by other courses. May be taken more than once if offered by a different instructor. (3 seminar hours a week.)

46-630. Professional and Practice Issues in Clinical Psychology

A team-taught seminar comprised of modules covering topics in clinical psychology. These topics include, but are not limited to, forensic psychology, child custody and access, clinical health psychology, consultation, program evaluation, private practice, geriatric clinical psychology, and suicide. (3 hours a week.)

46-640. Child Clinical Neuropsychology: Theory and Research

A survey of the literature dealing with brain-behaviour relationships in children. Topics emphasized include: the effect of brain dysfunction on perception, learning, memory, language and thinking; learning disabilities; mental subnormality. Students will receive training in the administration of neuropsychological tests. (Prerequisite or co-requisite: [46-503](#) or [46-529](#), or consent of instructor.) (3 seminar, 2 laboratory hours a week.)

46-641. Child Clinical Neuropsychology: Assessment

An examination of neuropsychological tests currently in use for the assessment of brain-behaviour relationships in children. Topics emphasized include: strategies and techniques of assessment; rationales underlying the use of various measures; modes of interpretation; approaches to habilitation and rehabilitation. Students will continue to receive training in the administration of neuropsychological tests. (Prerequisite: [46-640](#) or consent of instructor.) (3 seminar, 2 laboratory hours a week.)

46-642. Adult Clinical Neuropsychology: Theory and Research

A survey of the literature dealing with brain-behaviour relationships in adults. Topics emphasized include: the effect of brain dysfunction on perception, learning, and thinking; memory disorders; personality disorders associated with cerebral dysfunction. (Prerequisite or co-requisite: [46-503](#) or [46-529](#) or consent of instructor.) (3 seminar, 2 laboratory hours a week.)

Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

46-643. Adult Clinical Neuropsychology: Assessment

An examination of neuropsychological test batteries currently in use for the assessment of brain-behaviour relationships in adults. Topics emphasized include: strategies and techniques of assessment; rationales underlying the use of various measures; modes of interpretation; approaches to rehabilitation. Students will receive training in the administration of neuropsychological tests. (Prerequisite: [46-642](#) or consent of instructor.) (3 seminar, 2 laboratory hours a week.)

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

46-644. Neuropsychology of Developmental Disabilities

An examination of the theories, research, and practice related to the neuropsychological and biological correlates of developmental disorders. Disorders considered may include, but are not restricted to, learning disabilities, ADHD, intellectual impairment, specific language impairment, sensory impairment, disorders of the motor system, and seizure disorders. Each disorder will be examined from the perspectives of assessment, diagnosis, and treatment. (Prerequisites: [46-503](#) and [46-583](#), or consent of instructor.) (3 seminar hours a week.)

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

46-645. Neuropsychological Aspects of Rehabilitation

A study of the literature and the methods currently employed in the treatment of brain-injured adults. Topics to be stressed include epidemiology and societal impact, pathophysiology, clinical presentation and both the theories and practices of rehabilitation. (3 hours a week.)

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

46-646. Developmental Pediatrics

An examination of neurological, genetic, and other medical/developmental issues in infancy and early childhood. (3 hours a week.)

46-648. Neuropsychology of Aging

A survey of the literature dealing with brain-behaviour relationships across the older adult life span. Emphasis is given to the understanding and assessment of normal and dysfunctional aspects of cognitive and affective development in adulthood and aging. (3 hours a week.)

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

46-651. Survey of Child Psychotherapies

Introduction to psychotherapy with children with an emphasis on fundamental principles and empirical foundations of effective psychotherapy. Several treatment approaches are studied. (Prerequisite: [46-540](#).) (3 hours a week.)

46-652. Child Clinical Assessment

Advanced training in selection, evaluation, and use of tests designed for the assessment of children's abilities, personality, and behaviour. Practicum in administration, interpretation, and communication of results of comprehensive test batteries. (Prerequisite: [46-583](#) or consent of instructor.) (3 seminar hours a week, plus laboratory and practicum.)

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

46-655. School Psychology: Assessment, Intervention, and Consultation

Introduction to the practice of school psychology with didactic exploration of the scientific foundation of school psychology, legislation governing the profession, standards of practice, and ethics codes. Supervised practicum in a school setting will involve experience with the diverse roles of the school psychologist, including psycho-educational assessment, multidisciplinary consultation, behavior management, and crisis intervention. (Pre-requisite: [46-652](#) or consent of instructor.) (3 lecture hours a week, plus practicum.)

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

46-657. Issues in Cultural Diversity

An examination of issues associated with the negotiation of individual and intergroup relations in a culturally pluralist society, from an explicitly intercultural psychological perspective that focuses primarily upon the social processes occurring when members of different cultural groups interact with one another. Groups considered include, but

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are not restricted to, those based on ethnicity, gender, and class. Issues to be covered include the search for universals of social behaviour, the determinants, characteristics, and consequences of acculturative stress, and cultural value differences in the definition of self, inter-personal, and inter-group relations. (3 hours a week.)

46-660. Community Psychology

An overview of the field of community psychology, with emphasis on societal and cultural approaches to community well being, social problems, and effecting social change. Issues in theory, research, and practice in community psychology will be presented and discussed. (3 hours a week.)

46-662. Health Psychology

An overview of health psychology, with emphasis on contributions made by psychology to the areas of health promotion, prevention and treatment of illness, modification of unhealthy behaviours, and improvement of health delivery. Application of the biopsychological model to health-related research and practice will be examined. (3 hours a week.)

46-665. Industrial/Organizational Psychology.

An examination of theory, research, and practice in the area of Industrial/Organizational Psychology. Industrial topics include measurement theory, job analysis, criterion development and other areas of personnel decision making. Organizational topics cover leadership, work motivation, team development, organizational development, and other areas of organizational functioning. (3 seminar hours a week.)

46-667. Advanced Topics in Organizational Psychology

This course builds on the organizational psychology topics covered in [46-665](#). Core topics in the field will be explored in greater depth, supplemented with an examination of current trends in the field. Emphasis will be placed on understanding work behaviour and attitudes and how these affect individuals, groups, and organizations in the work setting. (Prerequisite: [46-665](#).) (3 seminar hours a week.)

46-668. Advanced Topics in Industrial Psychology

This course builds on the industrial psychology topics covered in [46-665](#). Core topics will be explored in greater depth, supplemented with an examination of current trends in the field. Emphasis will be placed on a critical analysis of issues related to individual assessments and human resource planning. (Prerequisite: [46-665](#).) (3 seminar hours a week.)

46-670. Applied Social Psychology

A survey of theory and research in applied social psychology, with an emphasis on applied research methods. Topics will be chosen from substantive areas such as organizational, health and community psychology, and areas of application such as social change issues, business, education, environment and law. (3 hours a week.)

46-674. Introduction to Psychotherapy

Comparative analysis of major contemporary models of psychotherapy with an emphasis on psychodynamic, behavioural, and experiential traditions. The practicum portion of the course focuses on the development of basic interviewing and therapeutic relationship skills. (Limited to Clinical Program students.) (3 seminar, 3 laboratory/practicum hours a week.)

THERAPY COURSES

Therapy courses consist of courses numbered [46-675](#) through [46-697](#) as listed below. enrollment in the Clinical Program, [46-674](#), and consent of the instructor are prerequisites for all therapy courses.

Therapy courses are taught over two terms. Seminars involve readings, discussion, and

presentations on the theory, relevant research, techniques, and processes that are specific to the therapeutic approach under consideration. Practica involve supervised experience appropriate to the therapeutic modality.

At least three different therapy course sequences will be offered in each academic year, but offerings will vary from year to year depending upon demand and the availability of qualified instructors.

46-675. Child Psychotherapy I

Examination of the theory, research, and practice of clinical interventions with children and their families with an emphasis on fundamental principles and empirical foundations of effective psychotherapy. Issues relevant to the practice of psychotherapy with different groups will be discussed. (Prerequisite: [46-674](#), and consent of the Director of Clinical Training and course instructor; Co-requisite or Prerequisite: [46-581](#).) (3 hours a week.)

46-676. Child Psychotherapy II

Supervised practice in clinical interventions with children and their families (Prerequisite: [46-675](#).)

46-677. Adolescent Clinical Interventions I

Examination of the theory, research, and practice of clinical interventions with adolescents with an emphasis on fundamental principles and empirical foundations of effective psychotherapy. Issues relevant to the practice of psychotherapy with different groups will be discussed. Supervised practicum included. (Prerequisites: [46-674](#); consent of instructor and Director of Clinical Training; Corequisite or prerequisite: [46-581](#).)

46-678. Adolescent Clinical Interventions II

Continuation of [46-677](#).

46-679. Short Term and Crisis Intervention I

Theory and practice of time-limited psychotherapy and crisis intervention. Lectures, reviews of major dynamic schools and role playing. Issues relevant to the practice of crisis intervention and short-term therapy with different groups will be discussed. (Prerequisites: one previous therapy course sequence; consent of instructor and Director of Clinical Training.)

46-680. Short Term and Crisis Intervention II

Supervised practicum in time-limited psychotherapy and crisis intervention. Clinical Students will carry two therapy clients at any given time under supervision (Prerequisite: [46-679](#).)

46-681. Behaviour Therapy I

Examination of the theory, research, and practice of learning based behaviour change strategies with the emphasis on respondent and operant-based procedures and inclusion of social learning. Issues relevant to the practice of psychotherapy with different groups will be discussed. (Prerequisite: [46-674](#), and consent of the Director of Clinical Training and course instructor; Co-requisite or Prerequisite: [46-581](#).) (3 hours a week.)

46-682. Behaviour Therapy II

Students will have the opportunity to apply behavioural techniques and change processes to selected clients. Emphasis will be placed on behavioural assessment and the systematic remediation of clinical problems through the application of respondent and operant techniques. (Prerequisite: [46-681](#).)

46-685. Psychodynamic Therapy I

This course focuses on the acquisition of the knowledge and skills necessary to

practice brief psychodynamic therapy. Students will be instructed in the Core Conflictual Relationship Theme method (CCRT). Readings include elements of classical theory, object relations, and self-psychology. Each student leads one seminar and one class discussion on a selection of texts, and initiates supervised psychotherapy according to the CCRT method with one or two clients. Issues relevant to the practice of psychotherapy with different groups will be discussed. (Prerequisites: [46-674](#); consent of instructor and Director of Clinical Training; Prerequisite or Corequisite: [46-581](#).) (3 hours a week.)

46-686. Psychodynamic Therapy II

Continuation of [46-685](#). Students continue supervised practice according to the Core Conflictual Relationship Theme method with one or two clients. Readings focus on the utilization of interpretations in the therapy process. Issues relevant to the practice of psychotherapy with different groups will be discussed. (Prerequisites: [46-686](#).) (3 hours a week.)

46-687. Group Therapy I

An introduction to the theory and practice of group therapy. Issues relevant to the practice of psychotherapy with different groups will be discussed. Supervised practica included.

46-688. Group Therapy II

This is the second course of a two course sequence and will include supervised practica.(Continuation of [46-687](#).)

46-690. Family Therapy I

This seminar is the first course in a two-course sequence that covers the background theory, research, and therapeutic techniques of the major approaches to family therapy. Issues relevant to the practice of psychotherapy with different groups will be discussed. Supervised practica will be arranged with families and/or couples. (Prerequisites: one previous therapy course sequence; consent of the instructor and Director of Clinical Training.)

46-691. Family Therapy II

Continuation of [46-690](#). Supervised practice in family therapy (Prerequisite: [46-690](#).)

46-692. Cognitive Behaviour Therapy I

This is the first course in a two-course series that is designed to provide a reasonably comprehensive and practical overview of cognitive-behavioural therapy (CBT). The focus in this course is on understanding the basic premises of CBT and on developing assessment, case conceptualization, and basic intervention skills. During the associated practicum, student therapists provide therapy to two clients and attend weekly supervision meetings during which videotaped sessions are reviewed and discussed. (Prerequisites: [46-674](#); consent of instructor and Director of Clinical Training; Prerequisite or corequisite: [46-581](#).)

46-693. Cognitive Behaviour Therapy II

This is the second course in a two-course series that is designed to provide a reasonably comprehensive and practical overview of cognitive-behavioural therapy. This course focuses on how CBT is applied to a range of common clinical problems, on how CBT may be adapted and modified to meet the needs of diverse populations (e.g., clients from different ethnic and cultural groups), and on reviewing empirical support for the use of CBT. Issues related to therapist training and supervision are addressed. Associated course practicum as described under [46-692](#) continues. (Prerequisite: [46-692](#).)

46-694. Experiential Psychotherapy I

An introduction to humanistic/experiential psychotherapy (an introduction of the person-centered, gestalt, experiential, and existential perspectives), with an emphasis on

developing one's talents in the nonspecific relationship factors central to all modes of psychotherapy. The humanistic/experiential approach emphasizes the development and use of therapist, as well as client, self-awareness, and is presented through didactic and experiential seminars. (Prerequisite: consent of instructor.) (4 hours a week.)

46-695. Experiential Psychotherapy II

Further development of the humanistic experiential approach to psychotherapy, with emphasis on its methods and on its application to particular syndromes, situations, and populations. Focus is placed on therapist understanding and experience of issues relevant to childhood abuse, spirituality, substance abuse, vicarious traumatization, gender, and race. (Prerequisite: [46-694](#).) (4 hours a week.)

46-696. Emotion Focused Therapy I

EFT is based on current emotion theory and experiential therapy theory and research emphasizing the central role of emotion in functioning and therapeutic change. This course covers the theory, research, and therapeutic techniques used in this treatment model. Students will participate in class discussions, role play exercises, and view videotapes of expert therapists. Supervised practica will begin the end of the first semester. (Prerequisite: one previous therapy course and consent of instructor.)

46-697. Emotion Focused Therapy II

This is the second course of a two course sequence. Special topics related to emotional processes in psychotherapy include the therapeutic relationship, problems with emotion regulation; empathy; emotional processing of trauma memories. Students will present seminars on relevant topics and supervised practica will be arranged. (Continuation of [46-696](#).)

46-699. Supervised Therapy Practice

Under this course number, advanced clinical students are permitted to carry one or two therapy cases under the close supervision of a clinical faculty member or associate. (Students may register in [46-699](#) for more than one term.)

46-701. Clinical Assessment Practi-cum

Supervised experience in an approved clinical setting with a focus on the development of skills related to interviewing, use of clinical assessment instruments, case formulation, and report writing. The student completes a minimum of 8 assessments. (Prerequisite: [46-583](#).)

46-702. Clinical Practicum

Supervised experience in an approved clinical setting with a focus on the development of basic clinical skills in preparation for practice and/or research. Students register for this course for each semester in which they attend a practicum placement. (Prerequisite: consent of the Director of Clinical Training; Prerequisite or Corequisite: [46-581](#) and [46-701](#).)

46-706. Predoctoral Clinical Internship

A one-year, full-time (or two-year, half-time) internship in a CPA- or APA-accredited clinical setting. (Prerequisites: completion of all doctoral requirements except for [46-798](#); acceptance of dissertation proposal at time of application for internship; consent of Director of Clinical Training.)

46-707. Clinical Supervision

A review of the purposes, models, and ethics of clinical supervision. Under the supervision of faculty, students will gain experience supervising more junior students conducting clinical interviews, therapy, and/or assessment. This course will include didactic, discussion, and experiential components.

46-711. Supervised Field Work I

(250 hours of supervised practice.)

46-712. Supervised Field Work II

(250 hours of supervised practice.)

46-715. Psychological Services Centre Predoctoral Internship I

A one-term, half-time internship at the Psychological Services Centre. (Prerequisites: with the consent of the Director of Clinical Training and in accordance with guidelines established by the Clinical Training Committee.) (350 hours of supervised internship.)

46-716. Psychological Services Centre Predoctoral Internship II

A one-term, half-time internship at the Psychological Services Centre. (Prerequisites: with the consent of the Director of Clinical Training and in accordance with guidelines established by the Clinical Training Committee.) (350 hours of supervised internship.)

46-717. Psychological Services Centre Predoctoral Internship III

A one-term, half-time internship at the Psychological Services Centre. (Prerequisites: with the consent of the Director of Clinical Training and in accordance with guidelines established by the Clinical Training Committee.) (350 hours of supervised internship.)

46-721. Applied Social Psychology Practicum

Problem solving in work settings, applying methods of community psychology, organizational psychology, and other fields of applied psychology. Students consult and work directly with a group or organization on a project selected for value to the organization and to the student. (2 class hours biweekly over 2 terms; 100 practicum hours.)

46-722. Organizational Consulting and Intervention Skills

This course provides students with skills for intervention in groups and organizations in community and business settings. Students will develop their consulting and intervention skills through a combination of consulting/ intervention projects, selected readings, and class seminars. Each student will be responsible for undertaking a small, circumscribed consulting project in a community-based, public-sector, or private-sector organizational setting. (3 hours a week.)

46-731. Applied Social Doctoral Internship I

(500 hours of supervised internship.)

46-732. Applied Social Doctoral Internship II

(500 hours of supervised internship.)

46-741. Comprehensive Examination

Preparation through independent study for the written Comprehensive Examination. Students may register in [46-741](#) for a maximum of three consecutive terms. (Prerequisite: completion of M.A. requirements.)

46-743. Teaching and Learning in Psychology

General overview of university instruction in the context of a large introductory psychology course. Seminar time is divided between theoretical review/ discussion (1 hour) and practical in-class application (2 hours). Topics include preparing a syllabus, performance evaluation, effective lecturing, facilitating discussions, problem situations, experiential work, collaborative and cooperative learning, problem-based learning, student diversity, ethics. (Prerequisite: consent of instructor.) (This is a non-credit course, and is given over two semesters.)

46-797. M.A. Thesis Research

46-798. Doctoral Dissertation Research



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SOCIAL WORK

GRADUATE FACULTY

Professors

Corey, E. in M. Ed. M. Ed. Ph.D. Buffalo -1984.

Associate Professors

Callant, Alfred J. B. St. Francis M. Ed. Maritime School of Social Work
D. Ed. -1983.

Cassano, D. Rosemarie M. Ed. Ph.D. Toronto -1984.

Leslie, Donald M. Ed. British Columbia Ph.D. Georgia -1984.

Ngell, J. Kent M. Ed. Ilfrid Aurier Ph.D. -1983.

Assistant Professors

Dunlop, Judith M. Ed. Regina M. Ed. Windsor Ph.D. Memorial -1982.

Nucha, O. M. Ed. Ph.D. Toronto -1983.

Alderwood, Jim M. Ed. Waterloo M. Ed. Ilfrid Aurier Ph.D. Toronto
-1983.

Arper, Jim M. Ed. Ph.D. Ilfrid Aurier -1983.

Arfordt, Bonnie M. Ed. Tah M. Ed. Wisconsin Ph.D. Virginia
Commonwealth -1985.

List of Community Service Organizations

Field Administrator

Medcalf, Mar M. Ed. Windsor -1982

D. Committee of Windsor
L. Heimers Society of Windsor and S. Mount
Ulmia, Noreia, Rosa Association
It. En. D. Ocac Windsor - S. S.
Community Social Planning Council Kingsville - Eamington
Family Counselling of Ambridge and North Dumfries
Greater S. S. Mount District School Board
S. S. and Services
Mental Health Connection

Faculty

Biological Sciences:
Programs

Multicultural Council of Windsor and Essex County
Sandwich Community Health Centre
Steen Health Centre
The Inn of Windsor
University of Windsor Student Counselling Centre
Walpole Island First Nation Social Services
Windsor Family Forum
Windsor Regional Hospital
Windsor-Essex Children's Hospital
Youth and Family Resource Network

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Courses

Business School of Business:
Graduate Faculty

Business: Programs

Business: Courses

Biochemistry and Chemistry:
Graduate Faculty

Biochemistry and Chemistry:
Programs

Biochemistry and Chemistry:
Courses

Communication Studies:
Graduate Faculty

Communications Studies:
Programs

Communication Studies:
Courses

Computer Science: Graduate
Faculty

Computer Science:
Programs

Computer Science: Courses

Earth Sciences: Graduate
Faculty

Earth Sciences: Programs

Earth Sciences: Courses

economics: graduate Faculty

economics: Programs

economics: courses

Faculty of Education:

graduate Faculty

Education: Programs

Education: courses

Faculty of Engineering:

Programs of Undergraduate

Civil and Environmental
Engineering : graduate
Faculty

: areas of specialization

: courses

Electrical Engineering:

graduate Faculty

Electrical Engineering:

areas of specialization

Electrical Engineering:

courses

Engineering Materials:

graduate Faculty

Engineering Materials:

areas of specialization

Engineering Materials:

courses

Industrial and Manufacturing

Systems Engineering MSc:

graduate Faculty

MSc: areas of

specialization

Mathematics: courses

Mechanical engineering:
graduate Faculty

Mechanical engineering:
areas of specialization

Mechanical engineering:
courses

English: graduate Faculty

English: Programs

English: courses

Environmental science
: graduate Faculty

: Programs

: courses

History: graduate Faculty

History: Programs

History: courses

Faculty of Human Kinetics:
graduate Faculty

Kinesiology: Programs

Kinesiology: courses

Mathematics and statistics:
graduate Faculty

Mathematics and statistics:
Programs

Mathematics and statistics:
courses

Faculty of Nursing: Graduate
Faculty

Nursing: Programs

Nursing: Courses

Philosophy : Graduate Faculty

Philosophy : Programs

Philosophy : Courses

Physics: Graduate Faculty

Physics: Programs

Physics: Courses

Political Science: Graduate
Faculty

Political Science: Programs

Political Science: Courses

Psychology : Graduate Faculty

Psychology : Programs

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THE MASTER OF SOCIAL WORK DEGREE

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The Master of Social Work program consists of two degree track options. A two-year MSW program is offered for students with a four-year honours degree in a related social science discipline or helping profession. Candidates for the two-year program will be considered on the basis of their academic background and standing. Applicants for the two-year program are strongly encouraged to have completed course work in the social and behavioural sciences. Candidates entering the two-year program are expected to complete the program in two years of full-time study over six consecutive semesters.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

A one-year MSW program is offered for students with an honours B.S.W. degree from a Canadian Association of Schools of Social Work accredited or recognized equivalency program. Candidates entering the one-year program will be expected to complete the program in one-year of full-time study over three consecutive semesters or two years of part-time study over six consecutive semesters.

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Admission Requirements

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Two-year full-time Master of Social Work Program: Applicants may be admitted into the first year of the two-year full-time M.S.W. program provided they have satisfactorily completed a four-year honours undergraduate degree in a related social science discipline or helping profession from the University of Windsor or an approved university, and have maintained a cumulative average of B in their undergraduate work.

[Faculty Regulations](#)

One-year full-time Master of Social Work Program: Applicants may be admitted into the one-year full-time M.S.W. program provided they have satisfactorily completed a B.S.W. from an accredited program, and have maintained a cumulative average of B.

[The Degree of Doctor of
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Applicants to the two-year program will be expected to demonstrate awareness of contemporary social issues, effective communication, and motivation toward professional social work. Applicants to the one-year program must indicate their interest in pursuing an Advanced Practice Internship or Thesis option.

[The Master's Degree](#)

Program Requirements

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The primary objective of the program is to promote the development of skills and knowledge of advanced generalist practice producing graduates who are able to assume leadership roles in the provision of service with vulnerable populations.

[General Courses, FGSR](#)

Two-Year M.S.W. Full-time Program

[Biological Sciences: Graduate](#)

This program takes two years to complete and includes a required field component in

Faculty	the first year of study and the completion of an Advanced Practice Internship (API) in the second year of study. The field component and API may involve travel and/or weekend hours, and students are responsible for transportation to and from their field placement or internship location. All students will be assigned a field placement in a human service organization or community setting in Year One.
• Biological Sciences: Programs	
• Biological Sciences: Courses	The Advanced Practice Internship (API) requires that students, in conjunction with the Field Office and an appropriate agency, develop a project related to a problem, interest, or issue of relevance to an agency, community or other practice setting and apply the Advanced Generalist practice perspective to this project. The project requires that the student assess a component of the intervention for practice effectiveness.
Odette School of Business: Graduate Faculty	
• Business: Programs	Students are required to complete a total of nine (9) courses in the first year of study: 47-503, 47-504, 47-531, 47-532, 47-533, 47-534, 47-547, 47-550, 47-570, plus 47-571 (Master of Social Work Foundation Year Practicum (6 credits)). Students are required to complete a total of six (6) courses in the second year of study: 47-620, 47-621, 47-622, 47-630, 47-640 and 47-680, plus 47-681 (the Advanced Practice Internship).
• Business: Courses	
Chemistry and Biochemistry: Graduate Faculty	<u>One-Year M.S.W. Full-time Program</u>
• Chemistry and Biochemistry: Programs	All students in the one-year program must select either: (1) an Internship seminar and Internship option, or (2) a Thesis seminar and Thesis option. Students who wish to be considered for the Thesis option must have five years post-BSW practice experience and must make an application to the Chair of the Graduate Studies Committee outlining employment experience and reasons for choosing the thesis option. It should be noted that the guidelines for the Thesis adhere strictly to the <i>Procedures to Follow in Preparing a Major Paper, thesis or Dissertation</i> as outlined in the booklet (available from the Office of Graduate Studies and Research).
• Chemistry and Biochemistry: Courses	
Communication Studies: Graduate Faculty	The Advanced Practice Internship (API) requires that students, in conjunction with the Field Office and an appropriate agency, develop a project related to a problem, interest or issue of relevance to an agency, community or other practice setting and apply the Advanced Generalist practice perspective to this project. The project requires that the student assess a component of the intervention for practice effectiveness.
• Communications Studies: Programs	
• Communication Studies: Courses	Students are required to complete a total of six (6) courses: 47-620, 47-621, 47-622, 47-630, 47-640, 47-680 or 47-696, plus 47-681(Advanced Practice Internship) or 47-797 (Thesis).
Computer Science: Graduate Faculty	Part-time Studies – Part-time students are expected to complete their program of study in two consecutive years. Continuous registration is required throughout the two years. All students must commit to either the Thesis or Advanced Practice Internship option by the end of the second semester in Year I.
• Computer Science: Programs	
• Computer Science: Courses	
Earth Sciences: Graduate Faculty	
• Earth Sciences: Programs	
• Earth Sciences: Courses	

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

- [IMSE: Courses](#)

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Faculty of Nursing: Graduate
Faculty

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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

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Social Work: Graduate
Faculty

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SOCIAL WORK: COURSE DESCRIPTIONS

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47-503. Foundations of Social Policy Analysis

This course introduces the student to the formulation and analysis of social policy. The student will develop policy analysis skills as a base for recommending changes in existing programs or services and for introducing new services. Special attention will be given to using multiple perspectives to analyze the unmet needs of vulnerable populations within the advanced generalist practice framework.

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47-504. Foundation Skills in Advanced Social Work Practice

This course introduces students to the various types of communication skills utilized in advanced social work practice. Through in-depth examination of intentional interviewing and counselling skills, students will explore core social work values in relation to practice situations. Content focuses on the critical analysis of particular verbal, non-verbal and written forms of communication. A laboratory format will be employed to build student competencies in the effective use of interactional skills with clients and client systems.

[Important Dates: 2007-08](#)

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47-531. Foundations for Practice with Individuals in Advanced Generalist Social Work

This course develops foundational knowledge based on micro practice theories and models including principles, values and techniques for advanced generalist practice with individuals. Students will develop an understanding of multiple perspectives of interpersonal relationships and interactional dynamics and their implications for social work involving various systems. The ability to apply critical analysis of practice with individuals in their social context will be emphasized.

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47-532. Foundations for Practice with Groups in Advanced Generalist Social Work

This course provides the theoretical framework and skills used in advanced generalist social work practice with groups. Students will use professional principles, values, and techniques to develop knowledge and skills in critical analysis, practice intervention, and outcome evaluation are related to work with client system groups. The challenges faced by vulnerable populations that affect group composition and development are explored. Person-in-environment assessment skills are used to identify client strengths and challenges and in formulating anti-oppressive approaches to practice using group modalities.

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Philosophy](#)

47-533. Foundations for Practice with Families in Advanced Generalist Social Work

This course prepares students to work with families as multiple-client systems in advanced generalist social work practice. Students will focus on a critical analysis and differential application of relevant social work knowledge, values and skills for assessment and intervention with families.

[The Master's Degree](#)

[Research Institutes](#)

47-534. Foundations for Practice with Communities in Advanced Generalist Social Work

Using the generalist social work practice model this course focuses on planning and implementing interventions with communities and human service organizations. Special emphasis is placed upon evaluating and addressing the needs and issues of oppressed and culturally diverse groups. The integration of classroom learning with the students' experiences in their field placements is emphasized.

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[Biological Sciences: Graduate](#)

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Programs

• Biological Sciences:
Courses

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• Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

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Communication Studies:
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Computer Science: Graduate
Faculty

• Computer Science:
Programs

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Earth Sciences: Graduate
Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

47-547. Advanced Social Work Research

This course prepares students to understand and critically use research in evaluating social work practice. It emphasizes the necessity of integrating research methods into micro, mezzo and macro levels of practice. The course will critically review the theoretical underpinnings of evidence-based social work practice that emphasizes the integration of research and professional practice.

47-550. Social Work Values, Ethics & Anti-Oppressive Practice

This course serves as an overview of the profession of social work and an introduction to advanced generalist practice with an anti-oppressive focus. The goal is to provide an understanding of the nature, history, traditions, and issues of the social work profession as they relate to the development of a distinct knowledge-base, set of values, and code of ethics. During the course, students will examine ethical questions and value dilemmas encountered by social workers in various fields of practice. Through value analysis and the application of ethical principles, the meaning of professionalism and its expression in social work are considered using contemporary practice case studies.

47-570. Field Integration Seminar

This seminar course focuses on the integration of academic and field work experience to advance knowledge, values, and skills as they relate to the development of advanced generalist practice competence. Students will use structured reflection and self-evaluation to understand their own practice in terms of values, ethics, policies, theoretical models, and agency expectations. Students will reflect upon personal values and beliefs and explore solutions to actual issues during their field placements. (This course is evaluated on a pass/fail basis.)

47-571. Master of Social Work Foundation Year Practicum

This course is offered in a field education setting and is designed to assure the practice of advanced social work from the generalist perspective. The foundation practicum comprises 450 hours of supervised social work practice and is completed three and a half days per week through the winter and spring academic terms (January-May). The practicum provides students with the opportunity to incorporate all components of the curriculum.

47-620. Leadership and the Organizational Context of Practice

This course examines the organizational context of social work practice. Focus of analysis will be organizational development and leadership roles at all levels in the organizational hierarchy. Issues of program evaluation, administrative functions, supervision, conflict resolution, interorganizational relations, and organizational change will be addressed in relation to organization vision, quality improvement and strategic planning. Topics will be adapted to the specific needs of students within the context of their areas of interest in work with specific vulnerable populations.

47-621. Social Justice and Vulnerable Populations

This seminar focuses on the history, meaning, and dynamics of barriers that threaten, preclude or compromise the normal participation of selected vulnerable groups in Canadian social, economic and political institutions. Using a framework of social justice, it employs concepts such as deviance, dependence, need, social control, and oppression.

47-622. Social Policy Analysis and Development

This course focuses on the processes involved in policy formulation, implementation, social change, and advocacy. It applies specific analytic frameworks and theories to issues of Canadian social policy and social justice in relation to vulnerable populations. These are: problem analysis, policy analysis and program analysis.

47-630. Advanced Generalist Practice

This course provides students with an understanding of the theory and use of advanced

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Faculty of Education: Graduate Faculty

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Faculty of Engineering: Programs of Study Overview

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- IMSE: Areas of
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generalist practice. Students learn to assess the multiple systems within which client systems interact, to identify the locus of the problem within the ecological system and select interventions appropriate to points of entry. It provides the multi-system practice framework where students integrate their field of study, selected vulnerable population and evidenced-based knowledge and skills.

47-640. Advanced Practice Research Methods

This course prepares students in using the evidence based practitioner-researcher model including problem formulation, qualitative and quantitative designs, data analysis, interpretation and dissemination of findings. Students will develop their thesis or Formal Internship Report (FIR) proposals for the evaluation of policies, practice interventions or programs relevant to vulnerable populations.

47-680. Internship Seminar*

This course provides an opportunity for students to develop a formal internship proposal related to their practice-research interests. Students select a community field education setting in which advanced generalist practice skills are developed and research or evaluation is conducted. Students are expected to produce an internship proposal and learning contract based upon a comprehensive review of the literature and a research or evaluation strategy for advanced generalist social work practice with a particular vulnerable population. The internship proposal typically requires formal ethics review for approval by the University and the field of education setting.

47-681. Advanced Practice Internship

This course is offered in a community field education setting. Students develop practice and research or evaluation skills which will equip them for leadership in advanced generalist social work practice. Students are expected to produce a Formal Internship Report (FIR) which will include an assessment of their individualized learning and skill acquisition and a dissemination plan of their evidence-based practice with their vulnerable population of study.

47-696. Thesis Seminar*

This seminar provides students an opportunity to write a formal thesis proposal. It includes developing a plan of study for presentation to a thesis committee.

47-797. Thesis

The thesis will integrate knowledge of research and evaluation methods to promote the acquisition of evidence-based practice to specific vulnerable populations. The thesis is supervised by the student's thesis committee.

*Given annual enrolment numbers, [47-680](#) and [47-696](#) may be offered together, concurrently in module formats.

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SOCIOLOGY

GRADUATE FACULTY

University Professors

Adam, Barry D.; B.A. (Simon Fraser), M.A., Ph.D. (Toronto)-1976.

Maticka-Tyndale, Eleanor; B.A. (State U. of New York, Binghamton), M.A. (McGill), Ph.D. (Calgary)-1993.

Professors

Ramcharan, Subhas; B.A., M.Sc. (West Indies); Ph.D. (York)-1971.

Phipps, Alan G.; B.A. (Manchester), M.A. (Queen's), Ph.D. (Iowa), M.C.I.P.-1988.

Basok, Tanya; B.A., M.A., Ph.D. (York)-1989.

Phillips, Lynne; B.A. (British Columbia), M.A., Ph.D. (Toronto)-1989.

Ilcan, Suzan M.; B.A. (Saint Mary's), M.A. (Dalhousie), Ph.D. (Carleton)-1994.

McDaniel, Susan A.; B.A. (Massachusetts), M.A. (Cornell), Ph.D. (Alberta)-2004.

Associate Professors

Shuraydi, Muhammad; B.A. (American U. of Beirut), Ph.D. (Alberta)-1973.

Mogyorody, Veronika; B.A. (Windsor), M.A. (Wayne State), B.Arch. (Detroit), Ph.D. (Rensselaer)-1976.

Hall, Alan; B.A. (Bishop's), M.A. (Guelph), Ph.D. (Toronto)-1994.

Lewis, Jacqueline; B.A., M.A., Ph.D. (Toronto)-1994.

Nakhaie, M. Reza; B.A. (National University of Iran), M.A. (Guelph), Ph.D. (Waterloo)-1997.

Lippert, Randy; B.A. (Lethbridge), M.A. (Ottawa), Ph.D. (British Columbia)-2000.

Mann, Ruth M.; B.A. (York), M.A., Ph.D. (Toronto)-2000.

O'Connor, Daniel; B.A., M.A. (Manitoba), Ph.D. (Carleton)-2000.

deLint, Willem; B.A., M.A., Ph.D. (Toronto)- 2002.

Assistant Professors

George, Glynis; B.A., M.A., Ph.D. (Toronto)-2000.

Faculty	Arnold, Robert; B.A., M.A. (Saskatchewan), Ph.D. (McMaster)-2001.
• Biological Sciences: Programs	Soulliere, Danielle; B.A., M.A. (Windsor), Ph.D. (Wayne State)-2001.
• Biological Sciences: Courses	Omorodion, Francisca Isi; B.A. (McMaster), M.A. (Toronto), M.A. (Exeter), Ph.D. (Benin)-2003.
	Albanese, John; B.A. (Western Ontario), M.A. (Toronto), Ph.D. (McMaster)-2004.
Odette School of Business: Graduate Faculty	Cradock, Gerald; B.A., M.A. (Simon Fraser), Ph.D. (UBC)-2004.
• Business: Programs	Deukmedjian, John; B.A. (Waterloo) , M.A., Ph.D. (Toronto) -2003.
• Business: Courses	Cheran, Rudhramoorthy; B.A. (Jaffna), M.A. (International Institute of Social Studies, The Hague), Ph.D. (York)-2005.
	Robertson, Leslie; B.A. (Simon Frazer), M.A. (Calgary), Ph.D. (UBC)-2005.
Chemistry and Biochemistry: Graduate Faculty	Engle, Karen J.; B.A. (Queens), M.A., Ph.D. (Alberta)-2006.
• Chemistry and Biochemistry: Programs	Fitzgerald, Amy J.; B.A., M.A. (Windsor), Ph.D. (Michigan State)-2006.
• Chemistry and Biochemistry: Courses	
Communication Studies: Graduate Faculty	
• Communications Studies: Programs	
• Communciation Studies: Courses	
Computer Science: Graduate Faculty	
• Computer Science: Programs	
• Computer Science: Courses	
Earth Sciences: Graduate Faculty	
• Earth Sciences: Programs	
• Earth Sciences: Courses	

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

- [IMSE: Courses](#)

[Mechanical Engineering:
Graduate Faculty](#)

- [Mechanical Engineering:
Areas of Specialization](#)

- [Mechanical Engineering:
Courses](#)

[English: Graduate Faculty](#)

- [English: Programs](#)

- [English: Courses](#)

[Environmental Science
\(GLIER\): Graduate Faculty](#)

[ES: Programs](#)

[ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)

- [History: Courses](#)

[Faculty of Human Kinetics:
Graduate Faculty](#)

- [Kinesiology: Programs](#)

- [Kinesiology: Courses](#)

[Mathematics and Statistics:
Graduate Faculty](#)

- [Mathematics and Statistics:
Programs](#)

- [Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
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Sociology: Graduate Faculty

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SOCIOLOGY: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
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[Sociology \(Social Justice\) \(MA\)](#)
[Sociology \(Social Justice\) \(PhD\)](#)

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THE DOCTOR OF PHILOSOPHY DEGREE

[Statistics Canada Disclaimer](#)

In addition to the general requirements listed in 1.5, the following requirements must be met by all students proceeding to the Ph.D. degree in Sociology.

[Important Dates: 2007-08](#)

Admission Requirements

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

For admission to the PhD program in Sociology applicants must hold a Master's degree in Sociology (or equivalent) from a recognized university. Possession of the minimum academic requirements does not ensure acceptance.

Applicants who wish to be considered for funding must apply by January 31. The closing date for all applications is February 28.

[Programs Offered - Overview](#)

Applicants must include the following:

(a) transcripts from all post-secondary institutions attended. (Transcripts must be sent directly from the institution);

[Application Procedures](#)

(b) a statement (up to 500 words) addressing the two following questions: (i) How have you been involved in social justice issues through research, work, or community activity; And (ii) How do you envision your research contributing to social justice;

[Faculty Regulations](#)

(c) a statement of a proposed area for dissertation research;

[The Degree of Doctor of
Philosophy](#)

(d) a sample of written work (e.g., a term paper, thesis proposal, published work);

[The Master's Degree](#)

(e) three letters of reference in sealed envelopes with the referee's signature across the seal. At least two should be academic references. One letter should be from the MA supervisor; one can be from a non-academic referee who has been in a supervisory or mentor role. These may be sent by the applicant or under separate cover by the referees.

[Research Institutes](#)

In addition to assessing the submissions made by the applicant to determine admissibility, the Graduate Committee takes into account (i) the availability of faculty to advise, supervise, and provide funding and research training in conjunction with their own research projects, and (ii) the diversity of subject areas represented in the applicant pool.

[General Courses, FGSR](#)

Program Overview

Doctoral Committee

[Biological Sciences: Graduate](#)

Upon admission to the Ph.D. program, the Graduate Committee will assign an interim

Faculty	faculty advisor whose research and teaching coincide with the applicant's area of interest. Students may submit a request to the Graduate Committee for a particular advisor.
• Biological Sciences: Programs	
• Biological Sciences: Courses	Research undertaken as part of the doctoral program is directed by a doctoral committee consisting of an advisor from the graduate faculty of the Department of Sociology and Anthropology, two other faculty members from inside the department, and one faculty member from outside the department. The student should select the doctoral committee by the end of the first academic year. The membership of the doctoral committee must be approved by the Faculty of Graduate Studies and Research.
Odette School of Business: Graduate Faculty	
• Business: Programs	<i>Course work</i>
• Business: Courses	Ph.D. students are required to complete six graduate courses, including 48-600 and either 48-605 or 48-606 . Proficiency in both quantitative and qualitative methods is required through completion of course work at the M.A. or Ph.D. level. Those without evidence of prior preparation may be required to take additional courses. Acceptable course grades are outlined in Section 1.5 of the Graduate Calendar.
Chemistry and Biochemistry: Graduate Faculty	
• Chemistry and Biochemistry: Programs	One course from the following list of social justice courses may be included to complete the course work requirement*:
• Chemistry and Biochemistry: Courses	<i>Humanities Research Group:</i> 09-599 <i>Communication Studies:</i> 40-501 , 40-512 , 40-515 <i>History:</i> 43-505 , 43-506 , 43-507 , 43-508 , 43-509 , 43-510 <i>Psychology:</i> 46-657 , 46-660 <i>Social Work:</i> 47-520 , 47-521 , 47-522 and 47-540 <i>Nursing:</i> 63-588 <i>Business:</i> 71-647
Communication Studies: Graduate Faculty	
• Communications Studies: Programs	*Permission may be required from the department offering the course. Advance permission from the departmental Graduate Committee is required in order to take any additional courses outside of the Sociology program.
• Communication Studies: Courses	Comprehensive Examinations and Dissertation Proposal
Computer Science: Graduate Faculty	After completion of all course requirements, students must demonstrate mastery of two established and distinct fields of sociological inquiry through satisfactory completion of two comprehensive examinations. Comprehensive examinations serve as preparatory work for the dissertation and enable students to develop recognized areas of expertise for teaching and career purposes.
• Computer Science: Programs	<i>Comprehensive Exams:</i> (a) Two comprehensive exams are required in the following areas: Social Theory, Methodology, Crime and Regulation, Culture and Power, Social Inequality, or Social Change, at least one of which must be in either Social Theory or Methodology.
• Computer Science: Courses	(b) Students may nominate a Comprehensive Examination Committee of three faculty members for each area in which they will be examined from a list of graduate faculty in that area of competence. The Graduate Committee must approve the composition of each committee.
Earth Sciences: Graduate Faculty	(c) Responsibility for setting each exam rests with the Comprehensive Examination Committee. It is the responsibility of the committee to ensure that the questions for a student's two comprehensive exams are distinct and without duplication. These exams and committees will be monitored by the Graduate Committee.
• Earth Sciences: Programs	(d) The comprehensive examinations will have a take-home format. The exam will be
• Earth Sciences: Courses	

Economics: Graduate Faculty

• Economics: Programs

• Economics: Courses

Faculty of Education: Graduate Faculty

• Education: Programs

• Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

• CEE: Areas of Specialization

• CEE: Courses

Electrical Engineering: Graduate Faculty

• Electrical Engineering: Areas Of Specialization

• Electrical Engineering: Courses

Engineering Materials: Graduate Faculty

• Engineering Materials: Areas of Specialization

• Engineering Materials: Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

• IMSE: Areas of Specialization

given to the student seven (7) days before it is due. The students will be given three (3) questions and must answer two (2) of the questions.

(e) Once a written comprehensive examination is submitted to the Comprehensive Examination Committee, the Committee has up to four weeks to schedule an oral defense meeting. At the end of the oral defense, a grade of pass or fail will be assigned by the Committee based on both components. Individual Committee members may submit written feedback to the student. In the event that a student fails the comprehensive examination, the Committee is required to provide a written explanation within five (5) working days.

(f) If a student fails a comprehensive examination, he or she may retake the examination once only at the discretion of the Head of the Department and the Dean of Graduate Studies and Research.

(g) Students failing a comprehensive exam after a second attempt will be required to withdraw from the program.

(h) Students cannot move on to another comprehensive exam until one comprehensive exam has been successfully completed.

(i) The student has a right to appeal a failed comprehensive exam by sending a written letter to the Graduate Committee, detailing the reason(s) for the appeal.

Dissertation Proposal

The dissertation proposal should be a concise document of no more than 20 pages that discusses: the central research topic of the dissertation; the significance and advancement research literature; the theoretical framework guiding the research; proposed research methods; a plan and schedule for completion of the thesis; the feasibility of the research project; and ethical issues raised by the research. The grant proposal format mandated by such major funding agencies as the Social Sciences and Humanities Research Council or the Canadian Institutes for Health Research can be used as a standard format for the proposal.

The dissertation proposal must be approved at a meeting of the doctoral committee before the research can proceed. The purpose of the meeting is to reach an agreement that the research is well-designed, feasible, and appropriately grounded in the relevant research literature. All doctoral students are required to comply with the ethical principles, values, and standards of the Canadian Sociology and Anthropology Association's Code of Ethics. A proposal for doctoral research involving human subjects must be approved by the University of Windsor Ethics Review Board before dissertation research can begin.

Dissertation Research

The dissertation is normally a book-length manuscript that makes an original contribution to knowledge. The dissertation should display a sophisticated awareness of the theoretical, methodological, and practical choices made during the research process and the implications of the research.

Dissertation research and writing processes vary significantly, depending on the methods used and preferences in working style. The student and supervisor should meet often during the research process, reviewing written work at regular intervals. The full doctoral committee shall meet for an assessment of progress at least twice a year.

The dissertation research process culminates with an oral defence. The doctoral committee will recommend to the candidate when the thesis is ready to defend. An

- IMSE: Courses

Mechanical Engineering:
Graduate Faculty

- Mechanical Engineering:
Areas of Specialization

- Mechanical Engineering:
Courses

English: Graduate Faculty

- English: Programs

- English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

- History: Programs

- History: Courses

Faculty of Human Kinetics:
Graduate Faculty

- Kinesiology: Programs

- Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

- Mathematics and Statistics:
Programs

- Mathematics and Statistics:
Courses

examiner from outside the university will be selected by the doctoral committee for the final defence of the dissertation, subject to the approval of the Department Head and the Dean of Graduate Studies and Research. The external examiner must be a nationally or internationally recognized expert in the area of the candidate's research. The external examiner does not participate in the direction of the research project, but appraises the dissertation and participates in the final oral examination.

THE MASTER OF ARTS DEGREE

Admission Requirements

1) Applicants with an honours degree in Sociology or a related field may be admitted into the candidate year of the M.A. program provided they have an adequate background in social theory and methodology. Students will be expected to comply with the general University requirements for the Master's degree. (See 1.6.2)

2) Applicants without an honours degree in Sociology may be required to take additional courses. Besides meeting all the requirements for the Master's program in their second year, students will be expected to comply with the general University requirements. (see 1.6.2)

3) Students transferring into Sociology from another discipline and those with insufficient preparatory background may be required to take up to ten additional courses before proceeding into the candidate year. These may include: [48-210](#) or [48-310](#); two courses from [48-403](#), [48-404](#), [48-405](#), [48-406](#), [48-408](#) or [48-415](#) and six other courses at the 300 or 400 level, two of which may be outside the program. At least an overall B average must be maintained.

4) Applicants with a three-year degree in Sociology or a related discipline may be admitted into a two-year Master's program. Besides meeting all the requirements of the minimum one-year Master's program in their second or further years, students will be expected to comply with the general University requirements (see 1.6.2).

The Department's current admission criteria are as follows:

(a) B+/A- minimum grade point average;

(b) strong recommendations based on faculty observation of student's performance, work experience, or community involvement demonstrating clear commitment to and understanding of sociological concerns;

(c) applicant's background preparation and graduate faculty resources available in the area of specialization indicated on the application.

Students with an honours degree in Anthropology must take [02-250](#), [48-302](#), [48-308](#), and one course from [48-403](#), [48-404](#), [48-405](#), [48-406](#), [48-408](#) or [48-415](#), or the equivalent. At least an overall B average must be maintained. Students with an honours degree in Criminology must take one course from [48-403](#), [48-404](#), [48-405](#), [48-406](#), [48-408](#) or [48-415](#), or the equivalent. At least an overall B average must be maintained. Students with an honours degree in Family and Social Relations must take one course from [48-403](#), [48-404](#), [48-405](#), [48-406](#), [48-408](#) or [48-415](#), or the equivalent. Students not having a sufficient background in statistics and/or social theory may be required to take [02-250](#) and [48-308](#) and/or [48-202](#) and [48-302](#). At least an overall B average must be maintained.

Program Requirements

MASTER OF ARTS - THESIS OPTION

The essential components of the Master of Arts degree in sociology are course work

Faculty of Nursing: Graduate Faculty

- Nursing: Programs
- Nursing: Courses

and a thesis. Students are expected to complete all 5 courses in two (2) consecutive semesters, [48-590](#) should be taken during the 3rd semester (i.e., Intercession/Summer Session).

Graduate students in the M.A. program will be expected to specialize in one of the five areas: Criminology; Family, Sex, and Gender; International Development; Migration, Racialization and Ethnicity; or Work. Course selections and course changes must be made in consultation with a faculty advisor (temporary or permanent).

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Students accepted directly into the candidate year will proceed towards the degree by achieving at least a B average in all six courses. The two required courses are: either [48-500](#) (Sociological Theory) or [48-501](#) (Classical Theories and Beyond), and either [48-505](#) (Quantitative Methods and Statistics) or [48-506](#) (Qualitative Methodology I). The other three courses must include at least one in the student's area of specialization. Faculty advisors may recommend particular courses to develop the skills necessary for thesis work. After completion of the courses, the focus shifts to the thesis which is an independent research project conducted in consultation with an advisor and thesis committee.

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

MASTER OF ARTS - COURSE STREAM OPTION

The essential component of the Master of Arts degree in sociology involves course work only.

Graduate students in the M.A. program will be expected to specialize in one of the five areas: Criminology; Family, Sex, and Gender; International Development; Migration, Racialization and Ethnicity; or Work. Course selections and course changes must be made in consultation with a temporary faculty advisor.

Political Science: Graduate Faculty

- Political Science: Programs
- Political Science: Courses

Students accepted directly into the candidate year will proceed towards the degree by achieving at least a B average in all eight courses. The two required courses are: [48-500](#) (Sociological Theory), and either [48-505](#) (Quantitative Methods and Statistics) or [48-506](#) (Qualitative Methodology I). Six additional graduate courses are required including at least one (1) course in a declared area of specialization. Students have the option of taking one graduate course outside the department.

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Notes:

1) Students not having a sufficient background in statistics and/or social theory may be required to take [02-250](#) and [48-308](#) and/or [48-202](#) and [48-302](#).

Social Work: Graduate Faculty

- Social Work: Programs
- Social Work: Courses

2) Seminar classes require active class participation. Instructors may therefore take into account class participation in grading students, in accordance with Senate regulations.

3) To change from one program to the other requires approval of the Graduate Committee.

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

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SOCIOLOGY: COURSE DESCRIPTIONS

[PROGRAMS OF STUDY
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All courses listed will not necessarily be offered in any given year.

All courses are taught as seminars.

[Statement of Responsibility](#)

48-500. Sociological Theory

A seminar on current and emerging trends in social theory from social constructionism to world systems theory, including contemporary debates on impacts of globalization, modernity and postmodernity, and the recovery of neglected voices in sociological theory.

[Statistics Canada Disclaimer](#)

[Important Dates: 2007-08](#)

48-501. Classical Theories and Beyond

A seminar on selected classical writings by theorists such as Marx, Weber, and Durkheim, as well as critical extensions of their work. Attention will be paid to contributions to the sociology of knowledge.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

48-505. Quantitative Methods and Statistics

Construction and testing of regression and logit models, sampling and questionnaire construction. Additional topics may be selected in view of the needs and interests of students.

[Programs Offered - Overview](#)

48-506. Qualitative Methodology I

An examination of the ethics and politics of research. An emphasis will be placed on interviews and life histories, discourse analysis, and select approaches to historical sociology. The course is designed to provide students with an opportunity to engage in various research activities and debates.

[Application Procedures](#)

48-520. Social Movements and Popular Mobilization

Seminar on the theory and research of large-scale transformations through historical and cross-cultural examinations of such topics as the development and impact of social movements, states and social revolutions, and the mobilization of people around issues concerning human rights, working conditions, racism, gender, sexuality, environment, peace, poverty, and globalization.

[Faculty Regulations](#)

[The Degree of Doctor of
Philosophy](#)

48-521. Social Inequality and the State

Seminar on the theory and research of structured inequality in the national and international context. The focus will be on the role of the state in creating, sustaining and altering different aspects of inequality in terms of resource attainment, political ideology and behaviour. Policy related issues may include globalization, family, sexuality, multiculturalism, immigration, employment, crime, education, health and welfare.

[The Master's Degree](#)

[Research Institutes](#)

48-525. International Development and its Discontents

Seminar on the central theoretical and empirical issues raised in understanding the ways in which national and global processes of socio-economic development are experienced locally.

[General Courses, FGSR](#)

48-530. Work and Social Change

This course examines current research and theoretical approaches in the sociology of work with an emphasis on understanding the relationship between the transformation of

[Biological Sciences: Graduate](#)

Faculty

work and broader social change in class, gender and ethnic relations. Areas of concentration may include the organization of production, worker control and resistance, state labour policies and legislation, unemployment, labour market segregation, and globalization.

• Biological Sciences:
Programs

• Biological Sciences:
Courses

Odette School of Business:
Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

• Chemistry and Biochemistry:
Programs

• Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

• Communications Studies:
Programs

• Communication Studies:
Courses

Computer Science: Graduate
Faculty

• Computer Science:
Programs

• Computer Science: Courses

Earth Sciences: Graduate
Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

48-540. Race and Ethnic Relations

A comparative analysis of race and ethnic relations focussing on such issues as ethnic stratification and mobility patterns, assimilation and cultural pluralism, and policies and legislation governing multiculturalism, employment equity and collective rights.

48-550. Family Relations and Gender Politics

An examination of historical and contemporary debates on gender politics within the context of family formation and social change in Canada. Special attention will be given to the gender division of labour, sexuality, economy and class, and to related social justice issues such as state regulation of marriage, divorce, child care and procreation, reproductive engineering and rights, and ideological power structures and practices that construct family members in particular social and cultural contexts.

48-555. Sexualities and Social Justice

This course will investigate the relationship between sexuality, power inequalities and social change. This may include an examination of the impact of globalization processes on sexualities, the development of lesbian, gay, bisexual, transgender and queer identities and movements, the racialization and gendering of sexual identity (and the sexualization of racial, ethnic and gender relations), the criminalization of sexualities, and the construction of sexual 'health'.

48-561. Crime and Exclusion

An exploration of research and theory on the conception, construction, and production of crime and other exclusionary processes. Substantive topics may include violence, victimization and the impact of culture, borders, inequalities, and regulatory agencies on crime and deviance.

48-562. Security and Regulation

An examination of research and theory on the regulatory agencies of criminal law and social policy (e.g. courts, police, corrections, social service agencies), modes of regulation (e.g. discipline, surveillance, detention) and their application (e.g. to bodies, spaces, borders and subjectivities).

48-565. Law and Governance

This course examines perspectives on moral regulation, the social construction of law and law as governance. The focus will be the analysis of various forms of law, policy and regulation. Substantive issues to be covered may include sexuality, immigration and exclusion, labour and economic policies, drug policies and communication, or cultural policies.

48-569. Culture and Globalization

This seminar course uses cultural perspectives to explore processes of globalization. Topics may include migration, mass mediated practices, transnational organizations, work and employment, and human rights.

48-574. Health and Social Justice

Examines the social construction, production, and subjectivities of health and illness with reference to a variety of social justice developments and policy issues.

48-580. Subordination, Identity and Empowerment

A micro level examination of the effects of subordination on everyday life in the generation of acquiescence and resistance, including the use of discourse in identity formation and popular ideologies.

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education:
Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering:
Programs of Study Overview

Civil and Environmental
Engineering (CEE): Graduate
Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering:
Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials:
Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing
Systems Engineering (IMSE):
Graduate Faculty

- IMSE: Areas of
Specialization

48-590. Directed Readings: Development of the Thesis Proposal

Students will register for this course with a faculty advisor in their declared area of specialization with the purpose of developing a thesis proposal. (Available for credit only in the MA program by thesis.)

48-600. Social Theory and Social Justice

A seminar to develop the theoretical foundations of doctoral research by critically examining the location of research and researchers in the global system, presumptions concerning human subjectivity and empowerment, and the conceptualization and practice of social justice. (Prerequisite: [48-500](#) or permission of instructor.)

48-605. Statistics and Quantitative Methods

Sociological applications of structural equation modeling, hierarchical modeling, log-linear models, multinomial and ordinal logits, consideration of the strengths and limitations of quantitative sociology and political issues in its exercise. (Prerequisite: [48-505](#) or permission of instructor.)

48-606. Qualitative Methodology II

A critical exploration of the epistemological assumptions and analytical tools associated with qualitative methodologies. Students will be exposed to a variety of research issues in the areas of sociological field work, select ethnographic techniques, the analysis of documents, and participatory action research. The course is designed to assist students in developing the methodological component of their PhD proposal. (Prerequisite: [48-506](#) or permission of instructor.)

48-797. MA Thesis

48-798. Doctoral Dissertation

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[ES: Programs](#)

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[History: Graduate Faculty](#)

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[Faculty of Human Kinetics:
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[Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

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Sociology: Graduate Faculty

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Visual Arts: Graduate Faculty

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VISUAL ARTS

GRADUATE FACULTY

Professor Emeritus

Baxter, Iain; B.Sc., M.Ed. (Idaho), M.F.A. (Washington State), R.C.A.-1988.

Professors

Gold/Smith, Susan; B.A., M.A. (Wayne State)-1970.

Dingler, Daniel W.; B.F.A. (Layton School of Art), M.F.A. (Cranbrook Academy of Art)-1971.

Associate Professors

Francis Pelkey, Brenda; M.F.A. (Saskatchewan)-2003.

Assistant Professors

MacDowall, Cyndra; B.A.E. (Queen's), M.F.A.. (Concordia)-2002.

Rodney, Lee; B.F.A. (Nova Scotia), M.A. (York) Ph.D. (Goldsmiths College, U.K.)-2004

Torinus, Sigi; B.A. (Art Institute Braunschweig, Germany), M.F.A. (Hamel, Germany), M.F.A. (San Francisco State)-2002.

Blatherwick, David; B.A.A. (Ryerson), M.A. (Québec)-2004.

Sessional Lecturer

Strickland, Rod; B.F.A. (Windsor), M.F.A. (Tennessee)-1984

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Visual Arts (MFA)

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THE MASTER OF FINE ARTS DEGREE

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The program provides two years of advanced education and creative development in the student's chosen areas of research. The program functions to stress studio production and the exploration of ideas and technical skills within a critical framework. Areas of research within the M.F.A. program are Painting/Drawing, Sculpture, Printmaking, and Integrated Media (Video, Sound, Photography and Digital Arts).

[Important Dates: 2007-08](#)

Students with a B.F.A. degree from the University of Windsor are encouraged to seek their Master's degree elsewhere.

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Admission Requirements

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1) In addition to the requirements set forth in 1.3 and 1.6.1 for admission to the Faculty of Graduate Studies and Research, applicants for admission to the Master of Fine Arts program must satisfy the following particular requirements:

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(a) have an honours B.A. with a major in Visual Arts or Bachelor of Fine Arts degree from an approved college or university; an applicant with a general B.A. with a major in Visual Arts may be admitted with the stipulation that deficiencies will be made up;

[Faculty Regulations](#)

(b) present twenty slides of recent work for evaluation by the departmental graduate acceptance committee;

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(c) have attained at least a B standing in undergraduate art courses;

(d) have six courses in art history;

(e) present transcripts of all university and/or college-level work;

(f) present three letters of recommendation.

[The Master's Degree](#)

2) An applicant who has graduated from a recognized professional institution may be required to apply for entry into a special program prerequisite to admission into the M.F.A. program.

[Research Institutes](#)

3) Students who are deficient in any of these requirements may be asked to register in appropriate undergraduate courses in order to satisfy the requirements.

[General Courses, FGSR](#)

4) Applications for admission to the Master of Fine Arts program should be complete by February 10 for Fall admission; applications received after that date may not be considered.

[Biological Sciences: Graduate](#)

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1) Ten courses are required:

(a) four courses in Studio Practice (27-561, 27-562, 27-563, 27-564);

(b) 28-660: Contemporary Issues;

(c) 28:600: Directed Individual Studies Stuides;

(d) Graduate Seminars ([27-596](#), [27-597](#), [27-598](#), [27-599](#));

(e) Early in the second term of their first year, students must participate in a first year M.F.A. group exhibition. This exhibition will be evaluated by faculty members to determine the advisability of a student continuing in the program.

2) *Thesis* ([27-797](#)): The thesis will consist of an exhibition of a body of original creative works within the candidate's area of research. The thesis will be planned with, and executed under the direction of the candidate's principal faculty advisor. This final exhibition should be regarded as the equivalent of the scholarly thesis of an academic discipline.

3) *Committees*:

(a) *Guidance Committee*: Each student will choose a guidance committee, approved by the Visual Arts Graduate Program Committee, at the beginning of the second term of his or her Master's program. This committee will meet with the student periodically throughout the time required to complete the M.F.A. program and to assess his/her work and progress through the program.

(b) *Thesis Defence Committee*: This committee will assess the student's thesis exhibition, conduct the oral examination, decide if the M.F.A. degree should be awarded and determine the thesis grade. The thesis committee will be constituted as follows: a member of the graduate faculty appointed by the Dean of Graduate Studies and Research serving as a non-voting chair, the student's principal advisor and two additional faculty members, one of whom will not have been a member of the student's guidance committee. In addition a professional artist or artist-educator not from the University of Windsor or the Windsor area will be chosen as an external member of the committee. The student will choose the last three members of this committee with the approval of the Visual Arts Graduate Program Committee and subject to the approval of the Executive Committee of the Faculty of Graduate Studies and Research.

4) *Examination and Thesis Requirements*:

(a) a solo exhibition of the completed creative thesis acceptable to the student's thesis committee;

(b) a written and photographic documentation of the thesis to be retained by Visual Arts;

(c) a formal oral defense of the thesis before the student's thesis committee;

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(d) written support document given to each member of the Thesis Committee two weeks prior to the scheduled defense.

5) *Residence Requirements*: The M.F.A. program will require a minimum of two academic years (four terms).
Transfer credits will be evaluated and may be accepted.

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STUDIO

All graduate studio courses are directed individual studies courses. Projects will be planned and carried out in conjunction with a faculty supervisor.

27-561. Studio Practice 1

Directed individual studio projects within the areas of research in; Painting/Drawing, Printmaking, Sculpture and Integrated Media (Video, Sound, Photography, Digital Arts). (This course is supervised by the Guidance Committee composed of two professors and the principal advisor.) (Open to M.F.A. students only.)

27-562. Studio Practice 2

Directed individual studio projects within the areas of research of; Painting/Drawing, Printmaking, Sculpture and Integrated Media (Video, Sound, Photography, Digital Arts). This course is supervised by the Guidance Committee composed of two professors and the principal advisor. (Prerequisite: [27-561](#)) (Open to M.F.A. students only.)

27-563. Studio Practice 3

Directed individual studio projects within the areas of research of; Painting/Drawing, Printmaking, Sculpture and Integrated Media (Video, Sound, Photography, Digital Arts). (This course is supervised by the Guidance Committee composed of two professors and the principal advisor.) (Prerequisite: [27-562](#)) (Open to M.F.A. students only.)

27-564. Studio Practice 4

Directed individual studio projects within the areas of research of; Painting/Drawing, Printmaking, Sculpture and Integrated Media (Video, Sound, Photography, Digital Arts). This course is supervised by the Guidance Committee composed of two professors and the principal advisor. (Prerequisite: [27-563](#).) (Open to M.F.A. students only.)

27-596. Graduate Seminar 1

The seminar addresses art methodologies in the creative research, the development of critical vocabulary and interpretations in the context of contemporary art making as well as some pedagogical concepts through lectures, group discussions, studio visits, visiting scholars and artists. The seminar provides a forum for peer critique and critical discussion on contemporary concepts related to the students' artistic research. (Open to M.F.A. students only.)

27-597. Graduate Seminar 2

The seminar addresses art methodologies in the creative research, the development of critical vocabulary and interpretations in the context of contemporary art making as well as some pedagogical concepts through lectures, group discussions, studio visits, visiting scholars and artists. The seminar provides a forum for peer critique and critical discussion on contemporary concepts related to the students' artistic research. (Prerequisite: [27-596](#).) (Open to M.F.A. students only.)

27-598. Graduate Seminar 3

The seminar addresses art methodologies in the creative research, the development of critical vocabulary and interpretations in the context of contemporary art making as well as some pedagogical concepts through lectures, group discussions, studio visits,

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visiting scholars and artists. The seminar provides a forum for peer critique and critical discussion on contemporary concepts related to the students' artistic research. (Prerequisite: [27-597](#).) (Open to M.F.A. students only.)

27-599. Graduate Seminar 4

The seminar addresses art methodologies in the creative research, the development of critical vocabulary and interpretations in the context of contemporary art making as well as some pedagogical concepts through lectures, group discussions, studio visits, visiting scholars and artists. The seminar provides a forum for peer critique and critical discussion on contemporary concepts related to the students' artistic research. (Prerequisite: [27-598](#).) (Open to M.F.A. students only.)

27-600. Special Project

Directed individual artist project outside the Student's area of research. (May be repeated for credit.) (Has to be approved by the Graduate Committee and the Program Coordinator.)

27-797. Thesis

ART HISTORY

The specific topics in the Directed Individual Studies in Art History and the Art History Seminar will vary from year to year, depending upon the interests and needs of professors and students. All courses are three hours a week unless otherwise indicated.

28-600. Directed Individual Studies

This course involves examination of a particular problem in a specific area of interest in which a paper will be required. (May be repeated for credit with permission of the M.F.A. Program Coordinator.)

28-660. Seminar on Contemporary Issues

Current issues in art criticism and theory will be considered through reading, discussions, museum trips, guest lectures and research papers culminating in a seminar presentation by individual students on specific issues.

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POSTGRADUATE AWARDS AND FINANCIAL AID

While there is no guarantee of financial support for individual students, the University of Windsor is committed to supporting and encouraging graduate studies. Each program and the Faculty of Graduate Studies and Research are available to assist in the preparation of a strong and complete application for funding.

The main sources of funding for graduate students at the University of Windsor are:
(a) National (Canadian) and provincial (Ontario) scholarship awards (i) tenable at Windsor, or (ii) tenable elsewhere;

(b) Internal scholarships and bursaries;

(c) Internal graduate teaching assistantships and research assistantships; OSAP (Ontario Student Assistance Program), which generally provides loans;

(d) Discipline-specific or designated awards (awarded by departments or external donors).

International students ("visa students") are also eligible for certain scholarship support.

For up-to-date detailed information on the funding available to graduate students, please refer to the website of the Faculty of Graduate Studies and Research (www.uwindsor.ca/grad).

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FEE REGULATIONS AND SCHEDULE

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The University reserves the right to make changes without prior notice in the various fee schedules, as well as changes in rules and regulations and the revision or cancellation of particular courses and programs. The acceptance of fees does not necessarily imply approval of registration.

Statement of Responsibility

The following regulations apply to all students.

Statistics Canada Disclaimer

PAYMENT OF FEES

Important Dates: 2007-08

Fees are due and payable before the commencement of regular term classes. (see "Calendar of the Academic Year" for specific dates). As a convenience, students may pay their tuition fees at any time prior to the appropriate due date. It is the responsibility of the student to ensure that deadlines are met.

Faculty of Graduate Studies
and Research (FGSR)

Cheques or other remittances must be made payable to The University of Windsor and must be received by the Cashier's Office prior to the due date. The student's name, identification number, address and telephone number should be recorded in the upper portion of the form of the remittance to ensure that the records are properly credited.

Programs Offered - Overview

Students may pay their fees at any chartered bank in Canada by using a bank payment form available at the Cashier's Office. If a student has a grant and/or loan (e.g., OSAP), the loan must be assigned to the University to pay the fees. Any known difference between the amount of the award and the fees must be paid on or before the due date.

Application Procedures

Students who are unable to complete payment of fees by the prescribed due date must arrange a fee deferment. Daily interest charges may apply. Deferments are permitted under the following circumstances:

Faculty Regulations

- (a) a student has evidence of having been awarded a Canada Student Loan or an Ontario Student Loan.
- (b) a student has evidence of having been awarded a scholarship, bursary or similar award, which may be used to pay the fees.

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Students who are sponsored and require invoices to be sent for collection of fees must bring the appropriate documentation to the Accounts Receivable Office, 1st Floor, Chrysler Hall North.

The Master's Degree

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1) It is the responsibility of the student to accurately report his or her academic status and correctly calculate the amount owing to the University for fees and other charges. Where calculations are incorrect or full payment is not made, daily interest will be charged on balances outstanding after the payment due date. Students should check all calculations thoroughly.

General Courses, FGSR

Biological Sciences: Graduate

Any errors in a student's academic program, level, and status in Canada must be reported to the Office of the Registrar. Any errors which result in the incorrect calculation of fees owing do not relieve the student of the responsibility for payment of these fees. Students will be responsible for any additional charges incurred as a result

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of changes in their academic profile for all terms that are applicable.

2) It is the responsibility of the student paying his or her fees by cheque to ensure that sufficient funds are available to cover any cheques made payable to the University of Windsor. Cheques returned by the student's bank for any reason will incur return cheque penalties plus other penalties.

3) Every effort is made to process payments in a timely manner; however, cheques are valid for a period of six months and may be cashed at any time during that period.

OVERLOAD COURSE FEE

Undergraduate students who enrol in a course overload as defined in 2.4.13 of the Undergraduate Calendar will be assessed an overload course fee.

INTEREST CHARGES ON OUTSTANDING ACCOUNTS

A daily interest charge will be calculated on all outstanding accounts. The interest will be compounded monthly.

A student who has failed to comply with the above regulations may have his or her registration cancelled as of the date on which the unpaid fees were due.

NON-PAYMENT OF FEES AND CHARGES

Information concerning academic results of any student who has an overdue debt owing to the University shall be withheld until the debt is settled. This includes transcripts, tuition tax receipts and diplomas. Overdue accounts which are not settled in a timely manner may be referred to an external collection agency as deemed necessary by the Cashiers Office.

Students who are graduating and who have an outstanding debt will be permitted to attend Convocation, but they will not receive their diplomas until all their debts are settled.

Any student who has an overdue debt owing to the University may not be permitted to re-register until the debt is settled in full by cash, certified cheque, debit card, a money order, bank draft, electronic back transfer. Students who are settling an overdue account who pay with a personal cheque will have the hold remain on their account for 30 days (45 days for foreign cheques and drafts) to ensure the cheque clears the bank. The hold may be lifted upon presentation of a copy of the front and back of the cancelled cheque.

A student who has not made a satisfactory fee arrangement by the appropriate fee payment due date (see above, 31.1.1) may be subject to cancellation of his/her registration. Students will be notified by mail of any cancellations due to non-payment using the most recent address available. Appropriate charges will be assessed effective the date of cancellation.

Note: Non-payment of fees does not automatically result in the cancellation of registration in a course or courses.

Any student whose registration has been cancelled for default of payment is required to apply for reinstatement of registration at the Office of the Registrar. If the application is approved, a \$50.00 reinstatement fee is added to any other assessable charges.

Overdue accounts must be paid by cash, certified cheque, or money order.

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

Any student who has an unresolved grievance concerning fees or other charges may present an explanatory letter with appropriate official documentation (e.g. doctor's notes, etc.) to the Credit Manager, Cashier's Office.

TUITION AND EDUCATION CREDIT CERTIFICATE (T2202A)

A special certificate in a form acceptable to Revenue Canada authorities is required in order that the student may claim a tax credit for eligible tuition fees for income tax purposes. This certificate will be mailed out by February 28 to all students whose accounts were paid in full by December 31 of the previous year. It is the responsibility of students to ensure that their mailing addresses are correct on the Student Information System.

WITHDRAWAL AND REFUND POLICY

Graduate students who, for any reason, wish to withdraw from the University must notify, in writing, the Office of Graduate Studies and Research, as otherwise resumption of graduate study at this University may be difficult or impossible.

Notice by telephone is not acceptable. Failure to attend classes does not constitute a withdrawal. Full refund will be given to part-time students enrolled in a course that has been cancelled by the University. Full- and part-time students withdrawing from regular courses during the periods indicated below will be assessed fees as indicated.

WITHDRAWAL DURING FALL OR WINTER TERM

FEE PAYABLE

Week(s) One and Two

None

Week(s) Three through Nine

Partial Fees Payable

After Week Nine

Full fees for the
appropriate
program payable

Refunds resulting from withdrawals will be available on request.

FREE TUITION FOR STUDENTS 60 YEARS OF AGE AND OVER

The University of Windsor offers an incentive of free tuition and incidental fees for students sixty years of age and over. It is felt that people in this group might wish to avail themselves of the University facilities, not only for degree purposes, but perhaps for personal enrichment and the fuller utilization of their leisure time. If you feel that your needs can be served according to this program, we encourage and invite you to contact the Student Information Resource Centre. This applies to Canadian citizens or Permanent Residents of Canada only.

SCHEDULE OF FEES

The Board of Governors reserves the right to make changes without notice in the published schedule of fees and charges if, in its opinion, circumstances so require. Any such changes will be reflected in the Self-Assessment form issued through the Cashier's Office before registration. It is the responsibility of the student to obtain this information.

The schedule of fees changes annually. Contact the Cashier's Office for information on the current schedule of fees, which outlines tuition, incidental, and other fees.

• IMSE: Courses	The following miscellaneous fees and charges are payable as incurred:	
	Undergraduate part-time studies application fee	\$25.00
	Letter of Permission	\$27.00
Mechanical Engineering: Graduate Faculty	Undergraduate change of course	\$5.00
• Mechanical Engineering: Areas of Specialization	Overload course	Part-time per course tuition fee
• Mechanical Engineering: Courses	Special and supplemental exam (per course)	
	Regular time, on campus	\$10.00
	Outside regular time, on campus	\$20.00
	Off campus	\$40.00
English: Graduate Faculty	Evaluation of documents	\$40.00
• English: Programs	Transcript of record	\$8.00
• English: Courses	Duplicate T2202A	
	Current year - First duplicate is free, each duplicate thereafter	\$3.00
	Previous years	\$5.00
Environmental Science (GLIER): Graduate Faculty	Late registration (full-time students)	\$30.00
ES: Programs	Returned cheque charge	\$25.00 per cheque
ES: Courses	Registration reinstatement	\$50.00
History: Graduate Faculty	Application to graduate fee	
	Before deadline	\$25.00
	After deadline	\$45.00
• History: Programs	For information regarding residences, meal plan, residence deposits, deposit refund policies, and University houses, please contact the Office of Residence Services, Room 49, Vanier Hall, University of Windsor, Windsor Ontario, N9B 3P4, telephone 519-253-3000, ext. 3379 or 3380.	
• History: Courses		
Faculty of Human Kinetics: Graduate Faculty		
• Kinesiology: Programs		
• Kinesiology: Courses		
Mathematics and Statistics: Graduate Faculty		
• Mathematics and Statistics: Programs		
• Mathematics and Statistics: Courses		

Faculty of Nursing: Graduate
Faculty

- [Nursing: Programs](#)
- [Nursing: Courses](#)

Philosophy: Graduate Faculty

- [Philosophy: Programs](#)
- [Philosophy: Courses](#)

Physics: Graduate Faculty

- [Physics: Programs](#)
- [Physics: Courses](#)

Political Science: Graduate
Faculty

- [Political Science: Programs](#)
- [Political Science: Courses](#)

Psychology: Graduate Faculty

- [Psychology: Programs](#)
- [Psychology: Courses](#)

Social Work: Graduate
Faculty

- [Social Work: Programs](#)
- [Social Work: Courses](#)

Sociology: Graduate Faculty

- [Sociology: Programs](#)
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Visual Arts: Graduate Faculty

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Faculty

- Biological Sciences:
Programs

- Biological Sciences:
Courses

Odette School of Business:
Graduate Faculty

- Business: Programs

- Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

- Chemistry and Biochemistry:
Programs

- Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

- Communications Studies:
Programs

- Communication Studies:
Courses

Computer Science: Graduate
Faculty

- Computer Science:
Programs

- Computer Science: Courses

Earth Sciences: Graduate
Faculty

- Earth Sciences: Programs

- Earth Sciences: Courses

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
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Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

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Areas of Specialization
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Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

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[Mechanical Engineering:
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[English: Graduate Faculty](#)

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[Environmental Science
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[History: Graduate Faculty](#)

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[Faculty of Human Kinetics:
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[Mathematics and Statistics:
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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

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BIOLOGICAL SCIENCES: PROGRAMS OF STUDY

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[Biological Sciences \(MSc\)](#)
[Biological Sciences \(PhD\)](#)

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THE DOCTOR OF PHILOSOPHY DEGREE

[Statistics Canada Disclaimer](#)

In addition to the general requirements, the following requirements must be met by all students proceeding to the Ph.D. degree.

Admission Requirements

[Important Dates: 2007-08](#)

Applicants with an honours degree in Biological Sciences or related field and who have been judged to be outstanding students may be admitted directly into the Ph.D. program. Applicants holding an M.Sc. degree or equivalent from the University of Windsor or from another recognized university or college may be admitted to the Ph.D. program with advanced standing in course work as described below.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Program Requirements

[Programs Offered - Overview](#)

Course Work: Students proceeding toward the Ph.D. degree will follow one of the programs given below:

[Application Procedures](#)

1) Students proceeding directly to the Ph.D. from an Honours B.Sc. degree will be expected to:

[Faculty Regulations](#)

- (a) comply with the general regulations;
- (b) attend all departmental seminars in Biological Sciences (formal presentations of visiting speakers; graduate student seminars, thesis defense presentations and dissertation defense presentations) each year of full-time registration;
- (c) present a departmental seminar in each year of enrollment (the dissertation defense may count as one of these);
- (d) successfully complete a minimum of four graduate courses. With the approval of the Doctoral Committee, courses may be in a cognate area. Statistics [65-453](#) (Statistics for Life/Social Sciences) may be allowed for graduate credit;
- (e) complete a dissertation embodying the results of an original investigation;
- (f) defend the dissertation at a public lecture or seminar.

[The Degree of Doctor of
Philosophy](#)

[The Master's Degree](#)

Students recommended and approved for transfer into the Ph.D. program after having completed one year of an M.Sc. degree in Biological Sciences at the University of Windsor will normally receive credit for graduate course work completed during the M.Sc. program.

[Research Institutes](#)

2) Students entering into a Ph.D. program with an M.Sc. degree will be expected to:

[General Courses, FGSR](#)

- (a) comply with the general requirements;
- (b) attend all departmental seminars in Biological Sciences (formal presentations of visiting speakers, graduate student seminars, thesis defense presentations and dissertation defense presentations) each year of full-time registration;
- (c) present a departmental seminar in each year of enrollment (the dissertation defense

[Biological Sciences: Graduate](#)

Faculty	may count as one of these);
• Biological Sciences: Programs	(d) successfully complete a minimum of two graduate courses for a minimum total of five (5) courses for the M.Sc. and Ph.D. combined. With the approval of the Doctoral Committee, courses may be in a cognate area. Statistics 65-453 (Statistics for Life/Social Sciences) may be allowed for graduate credit;
• Biological Sciences: Courses	(e) complete a dissertation embodying the results of an original investigation; (f) defend the dissertation at a public lecture or seminar.
Odette School of Business: Graduate Faculty	<i>Grading:</i> A student must maintain at least B- standing in each course in Biological Sciences and at least a B- average in any non-Biological Sciences courses. Any student whose performance is deemed unsatisfactory in course work or research will be asked to withdraw.
• Business: Programs	
• Business: Courses	<i>Doctoral Committee:</i> Within the first term of the student's registration, the doctoral committee will be formed except for the external examiner, who is to be appointed during the student's final year of study/research. The full committee will consist of at least five members; one must be from outside the University, one from the University faculty but outside Biological Sciences, and three must be within Biological Sciences. The research advisor will act as chairperson of this committee. The student should meet with individual committee members on an informal basis at least twice a year.
Chemistry and Biochemistry: Graduate Faculty	
• Chemistry and Biochemistry: Programs	The doctoral committee must meet for the following:
• Chemistry and Biochemistry: Courses	(a) to review and approve course work and the research proposal no later than six months into the program; (b) to prepare and administer the comprehensive examination within the first two years of the student's registration in the program; (c) to discuss the student's progress within two months after the comprehensive examination. (The extramural committee member need not participate.); (d) to discuss the student's research and dissertation at least two months before the anticipated time of the final oral examination; (e) the final oral examination.
Communication Studies: Graduate Faculty	
• Communications Studies: Programs	<i>Research Progress:</i> Each year from the date of initial registration, the student must submit a Research Progress Report to and meet with his or her doctoral committee. In addition, the student must review his or her research in a meeting with the doctoral committee at least six months before the anticipated date of the final oral examination.
• Communication Studies: Courses	<i>Dissertation:</i> Six months before the anticipated date of the final oral examination the student must review the research and dissertation in a meeting with the committee.
Computer Science: Graduate Faculty	A dissertation embodying the results of an original investigation in the student's major field is required of all candidates. The dissertation is expected to be of a quality suitable for publication in a refereed biological journal.
• Computer Science: Programs	<i>Examinations:</i>
• Computer Science: Courses	(a) <i>Comprehensive Examination:</i> The primary purpose of the Comprehensive Examination is to ensure that the student demonstrates both a reasonable mastery of the field of specialization, and knowledge of broader areas of Biology; it is designed to test the student's command of knowledge and ability to integrate that knowledge. This examination must be completed within two years of the student's initial registration in the program. Prior to the examination, the student will have provided the doctoral committee with a written proposal outlining the background, approach and general expectations of the intended research project; however the Comprehensive Examination is not intended to be, and should not be limited to, a defense of this proposal. The Comprehensive Examination will normally be an oral examination administered by the doctoral committee, and chaired by the Biological Sciences Graduate Coordinator (or designate). The student's Academic Advisor will communicate
Earth Sciences: Graduate Faculty	
• Earth Sciences: Programs	
• Earth Sciences: Courses	

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

the results of the examination and any recommendations to the student, and to the Biology Graduate Committee. Following the Comprehensive Examination the doctoral committee may assign the student appropriate remedial or supplementary course work. Successful completion of the examination and any remedial studies or course work recommended by the doctoral committee is prerequisite to the student's admission to candidacy in the doctoral program.

(b) Finally, the student will be re-requested to defend the dissertation orally at a public lecture or seminar (final oral examination).

THE MASTER OF SCIENCE DEGREE

Admission Requirements

1) Applicants with an honours degree in Biological Sciences or a related field may be admitted to the Master's Candidacy (M2) program.

2) Applicants with a general B.Sc. degree in Biological Sciences or a related field may be admitted to the Master's Qualifying (M1) program.

Program Requirements

1) Students admitted to the Master's Candidacy program will be expected to:

- (a) comply with the general regulations;
- (b) attend all departmental seminars in Biological Sciences (formal presentations of visiting speakers, graduate student seminars, thesis defense presentations and dissertation defense presentations) each year of full-time registration;
- (c) present a departmental seminar in each year of enrollment (the thesis defense may count as one of these);
- (d) successfully complete a minimum of two graduate courses with approval of the Master's Committee, courses may be in a cognate area. Statistics [65-453](#) (Statistics for Life/Social Sciences) may be allowed for graduate credit;
- (e) complete an original research project and embody it in a thesis;
- (f) defend the thesis orally at a public lecture or seminar.

2) Students admitted to the Master's Qualifying program, besides meeting the minimum requirements of the Master's Candidacy program, are expected in the first year of the two-year program to achieve a level of qualification equivalent to an honours degree through research and a minimum of four courses.

3) *Grading*: A student must maintain at least a B- average in each Biological Sciences course and at least a B- average in any non-Biological Sciences courses.

4) *Master's Committee*: Within one term of the student's registration in the program, the research committee will be formed and the names submitted to the Dean of Graduate Studies and Research. The full committee will consist of at least three members - the research supervisor, one other faculty member from within Biological Sciences, and one University faculty member from outside of Biological Sciences.

The student should meet with individual committee members on an informal basis at least twice a year. The committee, in turn, must meet to:

- (a) review and approve course work and the research proposal no later than six months into the program;
- (b) discuss the student's research and thesis at least six months before the anticipated time of the final oral examination;
- (c) participate in the final oral examination.

• IMSE: Courses

Research Progress: Each year from the date of initial registration, the student must submit a Research Progress Report to and meet with his or her Master's committee. In addition, the student must review his or her research in a meeting with the Master's committee at least six months before the anticipated date of the final oral examination.

Mechanical Engineering:
Graduate Faculty

Research Thesis: A thesis embodying the results of an original investigation in the student's major field is required of all candidates. The student must defend the thesis orally at a public lecture or seminar, which will be the final oral examination.

• Mechanical Engineering:
Areas of Specialization

• Mechanical Engineering:
Courses

English: Graduate Faculty

• English: Programs

• English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

• History: Programs

• History: Courses

Faculty of Human Kinetics:
Graduate Faculty

• Kinesiology: Programs

• Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

• Mathematics and Statistics:
Programs

• Mathematics and Statistics:
Courses

Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
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Visual Arts: Graduate Faculty

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ODETTE SCHOOL OF BUSINESS: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
\(Alpha-listing\)](#)

[Business Administration \(MBA\) \(Co-operative Education\)](#)
[Business Administration \(MBA\) \(Fast-Track\)](#)
[Business Administration \(MBA\) \(For Managers and Professionals\)](#)
[Business Administration/Bachelor of Laws \(Integrated MBA/LLB\)](#)
[Master of Management \(MM\)](#)

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THE MASTER OF BUSINESS ADMINISTRATION DEGREE

[Important Dates: 2007-08](#)

The purpose of the Master of Business Administration program is to provide broad graduate study in the general field of business administration. It provides students with three important components to prepare them for management positions; academic knowledge, job skills and work experience.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Graduate students have the opportunity of expanding their accounting, administrative, finance, marketing, management science and strategy expertise. The program emphasizes knowledge that prepares students for careers in private industry and business, for the public service, and for doctoral studies.

[Programs Offered - Overview](#)

Admission Requirements

[Application Procedures](#)

1) Applicants who have secured satisfactory standing (at least a B- average) in their undergraduate work may be admitted. Major consideration is given to the performance during the last two years of the undergraduate program. Applicants without an undergraduate degree who hold a professional qualification such as (for example) C.G.A., C.M.A., or C.H.R.P. and a minimum of five years' experience in their profession may be considered for admission to the MBA program. Possession of the minimum requirements for admission does not ensure acceptance.

[Faculty Regulations](#)

[The Degree of Doctor of
Philosophy](#)

Students must write the GMAT before applying for admission to the Faculty. Applicants who hold an M.B.A or a Ph.D. from a foreign University (or equivalent degree) in any discipline will not be required to write the GMAT. (Details of the Test may be obtained from The Educational Testing Service, Princeton, New Jersey, 08540.) The order form for the Bulletin of Information for the GMAT is available in the Office of the Registrar and in the M.B.A office.

[The Master's Degree](#)

[Research Institutes](#)

2) Graduates from a four-year Honours program in Commerce or Business Administration who, in the opinion of the Odette School of Business, have covered an adequate program of studies, may be admitted to the candidate year in the Fast Track M.B.A. program provided they have obtained satisfactory standing (at least a B- average) in their undergraduate degree.

[General Courses, FGSR](#)

3) Students will be recommended for admission to the candidate year if they have maintained a B- average or better in the first year of the program.

[Biological Sciences: Graduate](#)

4) Students in the candidate year who maintain a B- average or better will qualify for the M.B.A. degree.

Faculty

- Biological Sciences: Programs
- Biological Sciences: Courses

Odette School of Business: Graduate Faculty

- Business: Programs
- Business: Courses

Chemistry and Biochemistry: Graduate Faculty

- Chemistry and Biochemistry: Programs
- Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

- Communications Studies: Programs
- Communciation Studies: Courses

Computer Science: Graduate Faculty

- Computer Science: Programs
- Computer Science: Courses

Earth Sciences: Graduate Faculty

- Earth Sciences: Programs
- Earth Sciences: Courses

Prerequisites

The prerequisites required for admission are: first-year university-level mathematics; micro- and macroeconomics. The mathematics prerequisite may be waived depending on an applicant's quantitative GMAT score. If the prerequisites have not been completed prior to admission, they must be completed during the first year of the program.

Fee Policy for M.B.A. Students Taking Undergraduate Economic Courses

M.B.A. students will pay undergraduate fees for undergraduate courses taken as prerequisites for admission if the courses are taken within the first three terms after admission. The undergraduate courses will not be counted towards the graduate degree.

Part-time Status

Students who are unable to complete the program on a full-time basis for health, family, or other reasons may, upon recommendation from the Odette School of Business, be permitted to continue their studies on a part-time basis.

Course Requirements

All two year programs (M.B.A and M.B.A Co-op) require eleven 500-level courses in the first year.

The second year of the two year programs and the one year program (M.B.A Fast Track Co-op) requires ten 600-level courses.

The major paper is weighted as two courses; the thesis as four. A student writing a major paper or thesis would require eight or six additional courses respectively. Fast Track students who do not complete a co-op work term will be required to complete a major paper in addition to the ten courses.

75-698 is required of all MBA students.

Students will be allowed to pursue a general M.B.A. or choose one specific area of concentration. Areas of concentration include Business Strategy and Entrepreneurship, Finance, International Business, Marketing, Management and Labour Studies, Management Science and Production/Operations Management. To obtain an area of concentration, courses must be completed as follows:

BUSINESS STRATEGY AND ENTREPRENEURSHIP

- 75-680. Managing the International Enterprise
- 75-682. Manufacturing Strategy
- 75-690. Entrepreneurship: New Venture Formation and Management

Plus any two of:
75-692. Topics in Strategic Management
74-639. Marketing Strategy and Planning
71-613. Leadership and Organizational Change

FINANCE

- 72-672. Cases in Financial Management
- 70-651. Reporting, Analyzing, and Using Accounting Information

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Plus any three of:

[72-670](#). Investment Analysis and Management
[72-671](#). Portfolio Management
[72-673](#). Topics in Finance
[72-674](#). International Financial Management

INTERNATIONAL BUSINESS

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

[71-643](#). International Management
[72-674](#). International Financial Management
[74-635](#). International Marketing Strategy
[75-680](#). Managing the International Enterprise

Plus any one of:

[45-566](#). International Political Economy
[41-510](#). Theory of International Trade

or a Topics course with an international focus offered by any of the Areas

Faculty of Engineering: Programs of Study Overview

MARKETING

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

[74-639](#). Marketing Strategy and Planning

Plus any three of:

[74-631](#). Consumer Behaviour
[74-632](#). Marketing Research
[74-635](#). International Marketing
[74-638](#). Special Topics in Marketing

Plus any one of:

[72-672](#). Cases in Financial Management
[75-680](#). Managing the International Enterprise
[75-682](#). Manufacturing Strategy

or a Topics course being offered by one of the other Areas whose content is relevant to Marketing.

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

MANAGEMENT SCIENCE

[73-603](#). Management Science Methods
[73-605](#). Operations Management
[73-606](#). Strategic Implementation for Technologies Management

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Plus any two of:

[73-602](#). Topics in Management Science
[60-537](#). Database Management Systems
[60-538](#). Information Retrieval Systems
[60-539](#). Emerging Non-traditional Database Systems
[91-504](#). Advanced Operations Research I
[91-505](#). Advanced Operations Research II
[91-511](#). Stochastic Processes
[91-502](#). Manufacturing Systems Simulation
[91-500](#). Optimization
[91-503](#). Production and Inventory Control Systems
[91-508](#). Reliability Engineering

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

MANAGEMENT AND LABOUR STUDIES

[71-613](#). Leadership and Organizational Change
[71-643](#). International Management

<ul style="list-style-type: none">• IMSE: Courses	<p>71-646. Business Negotiations and Problem Solving 71-647. Managing Diversity in the Work-place</p>
<p>Mechanical Engineering: Graduate Faculty</p>	<p>Plus any one of: 71-648. Topics in Management and Labour Studies 95-500. Sport Leadership</p>
<ul style="list-style-type: none">• Mechanical Engineering: Areas of Specialization• Mechanical Engineering: Courses	<p><i>PRODUCTION/OPERATIONS MANAGEMENT</i></p> <p>73-604. Operations Management 75-682. Manufacturing Strategy</p> <p>Plus any three of: 73-602. Topics in Management Science 74-631. Consumer Behaviour 75-680. Managing the International Enterprise 41-531. Industrial Organization 91-509. Computer-Integrated Manufacturing 91-512. Flexible Manufacturing Systems</p>
<p>English: Graduate Faculty</p> <ul style="list-style-type: none">• English: Programs• English: Courses	<p><i>THE MAJOR PAPER</i></p> <p>Students may choose a major paper option. All students choosing this option must have a detailed major paper proposal approved by at least two faculty members in the Odette School of Business. These two faculty members will have primary responsibility for supervising the student's work. The approved proposal application form must be submitted to the Assistant to the Dean in order to register for the major paper (76-796). An oral defence will be required.</p> <p>The major paper will be graded, will receive six credits and will substitute for two 600-level course electives.</p>
<p>Environmental Science (GLIER): Graduate Faculty</p> <p>ES: Programs</p> <p>ES: Courses</p>	<p><i>THE THESIS</i></p> <p>Students may choose a thesis option. All students choosing this option must have a detailed thesis proposal approved by at least two faculty members in the Odette School of Business and by one faculty member external to the School but from within the University. An oral defence will be required (see 1.6.2, Committees).</p> <p>The thesis will be graded, will receive twelve credits and will substitute for four 600-level course electives.</p>
<p>History: Graduate Faculty</p> <ul style="list-style-type: none">• History: Programs• History: Courses	<p><i>Professional Accounting Designation</i></p> <p>Students who are interested in pursuing both a professional accounting designation (<i>i.e.</i>, C.A., C.M.A., or C.G.A.) and the M.B.A. are advised to complete their accounting course requirements while being registered in the Bachelor of Commerce for University Graduates program and then to apply for admission directly to the candidate year of the M.B.A. program (Fast-Track M.B.A.)</p>
<p>Faculty of Human Kinetics: Graduate Faculty</p> <ul style="list-style-type: none">• Kinesiology: Programs• Kinesiology: Courses	<p>MASTER OF BUSINESS ADMINISTRATION DEGREE CO-OPERATIVE EDUCATION</p> <p>Students have the opportunity to experiment with various areas of interest in a generalist capacity, or to focus on a specific area of interest. Although the Faculty will make every effort to match students with suitable employment, students are not guaranteed positions, and the availability of positions may vary with the state of the labour market.</p>
<p>Mathematics and Statistics: Graduate Faculty</p> <ul style="list-style-type: none">• Mathematics and Statistics: Programs• Mathematics and Statistics: Courses	<p>Following the completion of each work term, a work report is required. These reports</p>

Faculty of Nursing: Graduate Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

focus on a problem or problems at work as analyzed by the student in a significant academic analysis. These reports serve to develop solid communication skills. Guidelines regarding the content and format of the reports are determined by the Graduate Committee of the Odette School of Business. One report is required for each completed work term.

In addition to the normal admission requirements, students seeking admission to the Co-op program will be required to have an interview with a representative from the Centre for Career Education.

CO-OPERATIVE M.B.A. WORK/STUDY SEQUENCE

Qualifying Year

Fall Term

76-501. Interpersonal Dynamics
76-502. Core Concepts of Accounting Information I
76-503. Introduction to Financial Management
76-504. Quantitative Techniques in Management
76-505. Marketing Management
76-506. Managing Employees

Winter Term

76-510. Core Concepts of Accounting Information II
76-511. Research Methodology
76-512. Financial Management
76-513. Human Resources Management
76-514. Management Information Systems

Summer Term

76-701. M.B.A. Co-op Work Term I

Candidate Year

Fall Term

workshops, plus five 600-level Business courses

Winter Term

76-702. M.B.A. Co-op Work Term II

Summer Term

75-698. Strategic Management
workshops, plus four 600-level Business courses

REGULAR M.B.A. PROGRAM

This program is intended for those students not choosing the M.B.A. Co-op program (primarily students in the integrated M.B.A./LL.B. program). The academic portion is identical to the Co-op program and students will take their courses during the study terms for Co-op students.

FAST TRACK M.B.A. PROGRAM

This program is designed for students who have graduated from a four-year honours business program. Fast Track M.B.A. students are exempt from the first (qualifying) year of the regular program, entering directly into the second (candidate) year. It includes not only traditional academic course work but also a co-operative work placement with selected organizations. The program is purposely designed to provide practical knowledge based experience usually not available at an undergraduate level.

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FAST TRACK M.B.A. PROGRAM STUDY SEQUENCE

Fall Term

[76-660](#). Management Skills Development
plus workshops and four 600-level Business courses

Winter Term

[76-711](#). Work Term

Summer Term

[75-698](#). Strategic Management
plus workshops and four 600-level Business courses

Students who are unable to complete the work term ([76-711](#)) will write a major paper ([76-796](#)).

INTEGRATED M.B.A./LL.B. PROGRAM

This special program provides students interested in a career which combines legal and business management skills with an opportunity to complete both the M.B.A. and the LL.B. degrees in four years. It is administered by the Integrated M.B.A./LL.B. Program Committee composed of representatives from the Odette School of Business, the Faculty of Law and the Faculty of Graduate Studies and Research.

The M.B.A integrated with the LLB program requires seven 600-level courses.

Admission Requirements

The admission procedure for the integrated program consists of two stages. At the first stage, students applying to the program must meet the admission requirements of both the M.B.A. and LL.B. programs. Therefore separate applications must be submitted to the Faculty of Law and the Faculty of Graduate Studies and Research for admission to the regular degree program in Law and the M.B.A. To facilitate academic and career planning, it is strongly suggested that these applications be made simultaneously. Students who are accepted to both the M.B.A. and LL.B. programs will be accepted to the integrated program, and will proceed to attend first year in either Faculty. Such students will be granted a deferred admission to the other Faculty in the program.

This special deferred admission will be revoked if the applicant's performance in the first program fails to meet the first-year academic standards of the program. In such case the applicant may re-apply for regular admission to the second degree program.

Applications will also be considered for entry to the program from candidates who are attending the first year of either the LL.B. or M.B.A. programs. They must meet the admissions requirements and application deadline for the program for which they are seeking entry.

Application Deadlines

Faculty of Law - November 1 (LL.B.)

Faculty of Graduate Studies and Research - June 1 (M.B.A.)

For application materials please contact each of the following separately:

For the LL.B.:

Ontario Law School Application Service

P.O. Box 1328

170 Research Lane

Guelph, Ontario
N1G 5E2
Telephone: (519) 823-5232
Website: www.ouac.on.ca/olsas

For the M.B.A.:
Odette School of Business
M.B.A. Admissions
University of Windsor
Windsor, Ontario
N9B 3P4
mba@uwindsor.ca
Website: www.uwindsor.ca/mba

TERM PLANNING

First and Second Years

The first two years of study in the integrated program will consist of the regular first-year programs of each faculty.

Third and Fourth Years

The third and fourth years of the integrated program will be devoted to required and elective courses offered in both the Faculty of Law and the Odette School of Business.

In the M.B.A. program students will be required to take five candidate-level courses. These must include [75-698](#) (Strategic Management) and four courses selected from a minimum of two of the following areas: Accounting, Management and Labour Studies, Finance, Management Science, Marketing, and Business Strategy and Entrepreneurship. In addition, the M.B.A. major paper or thesis must have a substantial legal component.

In the Faculty of Law, the student will enrol in courses for a minimum of forty credits. These must include Torts, Civil Procedure, one course from the Legal Perspectives Group, and one course requiring a substantial paper that must account for at least 50 percent of the student's grade in the course. The M.B.A. paper will ordinarily satisfy this requirement, subject to the approval of the Faculty of Law Academic Programs Committee.

In addition to the requirements outlined above, the candidate must choose three additional candidate-level M.B.A. courses or a further three law courses totalling at least nine credit hours or any equivalent combination. The student's elective choices shall be reviewed by the Integrated M.B.A./LL.B. Committee in light of the student's personal and career objectives, and the necessity of scheduling core business and law courses.

ADVANCEMENT

Continuation in the program is conditional on students meeting the following requirements:

First and Second Years: Standing in the top half of the class; no Faculty of Law course grade lower than C-.

Third and Fourth Years: In courses taken in the Odette School of Business, candidates must attain at least one A- or above grade and not receive any grades below B-. In courses taken in the Faculty of Law, candidates must attain in each year at least one grade of B- or above and must not receive any grade lower than C-.

Candidates who fail to meet the above standards may be advanced upon the approval of the Program Committee if such action is warranted. Candidates who either fail to advance from First to Second Year, Second Year to Third Year, Third to Fourth Year, or who choose to leave the program will be free to continue on for both degrees, but within normal degree requirements, and subject to any conditions set out by the two Faculties. Students who fail to advance or who leave the program after Third Year and who have taken the appropriate electives may petition the Odette School of Business to be allowed to complete the regular requirements for the M.B.A. degree.

YEAR	LAW STREAM	BUSINESS STREAM
I	Law I	Qualifying Year-M.B.A.
II	Qualifying Year-M.B.A.	Law I
III*	Candidate Year-M.B.A. Law II & III	Candidate Year-M.B.A. Law II & III
IV*	Candidate Year-M.B.A. Law II & III	Candidate Year-M.B.A. Law II & III

Please consult the Cashier's Office about the tuition structure and the Faculty of Graduate Studies and Research for inquiries about awards.

Students with an Honours Bachelor of Commerce Degree

Students holding an Honours B.Comm. degree may obtain both the LL.B. and M.B.A. degrees without the assistance of a special integrated program. However, by submitting applications simultaneously to both the Faculty of Law and the Faculty of Graduate Studies and Research and indicating an interest in the program, such students may be granted a deferred admission to whichever degree program he or she elects to take second. This special deferred admission will be revoked if the applicant's performance in the first program fails to meet the first-year academic standards of the program. In such case the applicant may re-apply for regular admission to the second degree program.

Note: The University reserves the right to make changes in the integrated program and any rules or regulations applying to it.

M.B.A FOR MANAGERS AND PROFESSIONALS

The M.B.A for Managers and Professionals is an accelerated program geared toward students who are employed full-time and have accumulated significant experience in management and business practices.

Admission Requirements

- 1) Four-year (honours) undergraduate degree;
- 2) Three years of work experience in managerial or professional positions;
- 3) Applicants must achieve a satisfactory score on the GMAT to be granted admission

to the MBA for Managers and Professionals. Applicants who hold an M.B.A from a non-Canadian University or a Ph.D. (or equivalent degree) in any discipline will not be required to write the GMAT. The GMAT requirement may be waived for applicants who can demonstrate the following: (1) Successful performance in a job that has an extensive quantitative component (comptroller, quality assurance supervisor, engineer, etc.); and (2) a B average or better in an undergraduate degree that emphasizes quantitative skills (such as Engineering, Mathematics, Statistics, and the like), or performance at the B or better level in a recent Mathematics or Statistics course at a recognized University. The GMAT will strengthen the application.

4) An applicant whose first language is not English and who has not worked in an English-speaking environment for at least three years would have to demonstrate adequate command of English by an appropriate score on the TOEFL, CAEL, or other recognized test;

5) Satisfactory performance on a personal interview. Interviews will be conducted for prospective students.

Students with an Honours B.Comm.

Applicants who have a four-year B.Comm. or equivalent business degree could be admitted directly to the second year of the Professional M.B.A if they meet the above criteria and furthermore:

- (a) have completed their degree no more than five years before the cut-off date for applications;
- (b) had an average grade of B or higher in their program.

Program Curriculum

Total courses: 20

As with the regular M.B.A. program, all required courses are offered by the Odette School of Business Administration. In this program students will follow a prescribed sequence of courses in cohort fashion, with no electives - an approach that is not uncommon in M.B.A. programs directed at working managers and executives.

Program Sequencing

Courses are scheduled on alternate weekends; contact time is supplemented by Web-based instruction and team assignments. Students complete two courses concurrently before moving to the next two courses.

Year 1

- [77-521](#). Core Concepts of Accounting I
- [77-522](#). Introduction to Financial Management
- [77-523](#). Quantitative Techniques in Management
- [77-524](#). Managing People in Organizations
- [77-525](#). Business Research Methods
- [77-531](#). Core Concepts of Accounting II
- [77-532](#). Financial Management
- [77-533](#). Management Information Systems
- [77-534](#). Managing Human Resources
- [77-535](#). Marketing Management

Year 2

- [77-620](#). Reporting, Analyzing, and Using Accounting Information
- [77-621](#). Leadership and Organizational Change
- [77-623](#). Maximizing the Value of the Organization

- [77-624](#). Managing in the International Arena
- [77-625](#). Strategic Management
- [77-626](#). Strategic Implementation for Technologies Management
- [77-627](#). Business Negotiation and Problem Solving
- [77-628](#). Entrepreneurship and Intrapreneurship
- [77-629](#). Current Issues in Business

MASTER OF MANAGEMENT

The Master of Management is a twelve-month program specifically designed for a cohort of international students. Students enrolled in the program select a concentration from one of the four following fields: 1) Manufacturing Management; 2) Logistics and Supply Chain Management; 3) Human Resource Management; and 4) International Accounting and Finance. Not all fields will necessarily be offered each year. For more information contact the Centre for Executive Education at www.uwindsor.ca/execed.

Admission Requirements

Admission to the Master of Management program will be open to applicants who meet the following criteria:

- 1) Bachelor-level degree in an acceptable discipline from an academic institution approved by the University of Windsor;
- 2) The equivalent of a B- average in undergraduate studies;
- 3) Where appropriate a TOEFL score of at least 560 (or proof of equivalent English language proficiency, such as MELAB or CAEL tests);
- 4) A successful interview with a representative from the Odette School of Business.

Program Curriculum Structure

Total courses: 12

As with the regular M.B.A. program, all required courses are offered by the Odette School of Business Administration. In this program students will follow a prescribed sequence of courses in cohort fashion, with no electives. In addition, the academic program itself will be preceded by an intensive 8-week program of English language instruction and introductory courses to Canadian culture and business practices.

Program Sequencing

Pre-program: Intensive ESL instruction and orientation to Canadian culture and business practices.

First Term

- [78-611](#). Accounting concepts and techniques
- [78-612](#). Finance in a global perspective
- [78-613](#). Managing employees
- [78-614](#). Marketing

Second Term

Common Core Courses:

- [78-631](#). International Business
- [78-632](#). Quantitative Studies

Manufacturing Field

[78-633](#). Introduction to Business Logistics Management

[78-634](#). Leadership and Organizational Change

Logistics and Supply Chain Management Field

[78-633](#). Introduction to Business Logistics Management

[78-635](#). Purchasing and Procurement

International Accounting and Finance Field

[78-636](#). International Financial Reporting

[78-637](#). International Financial Management

Human Resources Management Field

[78-638](#). Human Resources Management

[78-364](#). Leadership and Organizational change

Third Term

Common Core Courses:

[78-651](#). Business Strategy (capstone course)

Manufacturing Field

[78-652](#). Marketing Strategy and Planning

[78-653](#). Manufacturing Strategy

[78-654](#). Manufacturing and Globalization (Stream capstone)

Logistics and Supply Chain Management Field

[78-655](#). Domestic Transportation and International Shipping

[78-656](#). Quantitative Analysis for Logistics and Supply Chain Management

[78-657](#). Supply Chain Management (Stream capstone)

International Accounting and Finance Field

[78-661](#). Consolidated financial statements

[78-662](#). Accounting Systems Control and Auditing

[78-663](#). Corporate Governance (Stream capstone)

Human Resources Management Field

[78-665](#). International Management

[78-666](#). Managing for High Performance

[78-667](#). Current HR Trends (Stream capstone)



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CHEMISTRY AND BIOCHEMISTRY: PROGRAMS OF STUDY

Chemistry and Biochemistry (MSc)
Chemistry and Biochemistry (PhD)

Facilities are provided for students wishing to proceed to the degrees of Master of Science and Doctor of Philosophy. Students may enrol in graduate studies in Chemistry and Biochemistry. Additional requirements may be found in the Chemistry and Biochemistry Graduate Handbook.

THE DOCTOR OF PHILOSOPHY DEGREE

In addition to the general requirements outlined in 1.5.2, the following requirements must be met by all students proceeding to the Ph.D. degree:

1) *Course Work*: Candidates must complete successfully at least six courses, including [59-710](#) (or three courses if the candidate enters the program with an MSc degree) chosen from the available graduate offerings in the student's field or from related and cognate courses, with the approval of the Program Committee. The student may be required to take additional courses, as stipulated by the student's Doctoral committee.

2) *Seminars*: In addition to the above course work, students must attend the regular departmental Seminar ([59-795](#)) throughout their Ph.D. studies and present at least one seminar on their research as a fulfilment of this requirement.

3) *Dissertation*: The principal requirement for the Ph.D. degree is the presentation of a dissertation which embodies the results of an original investigation ([59-798](#)). For general requirements of the dissertation, see 1.5.3.

A student who fails to achieve satisfactory performance in all aspects of the program (e.g., course work, seminars, and dissertation work) may be required to withdraw.

4) *Doctoral Committee*: The Ph.D. committee is chosen in the manner described in 1.5.2. This committee will meet with the student annually to review his or her progress. As part of this review the student will present a short seminar on his or her research progress.

5)

(a) *Transfer to the Ph.D. program*: M.Sc. students with a minimum of an A- average in a minimum of two courses taken as a graduate student may transfer directly to the Ph.D. program following a meeting with the Graduate Advisory Committee (with participation of the Outside Reader optional) at which approval to transfer is recommended. Such transfers will normally take place between the 12th month to the 24th month after admission to the M.Sc. II program.

(b) *Comprehensive Examination*: Students in the Ph.D. program will be required to complete an oral comprehensive examination within the first twelve months following

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Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

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• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

admission into the Ph.D. program. The examination will take the form of a ten to twenty minute presentation of the student's research work to date, followed by a question and answer session in which the student's depth of knowledge of the field of research and the underlying chemical and/or biochemical principles will be examined. The student will be assessed by a committee of three members comprised of the research advisor and two other faculty members from Chemistry and Biochemistry, with additional members optional. As a guide to the student, the committee may provide some directed readings prior to the examination. The student will be expected to understand the subject matter and background of these topics. A grade of Pass or Fail will be given. In the event of a failing grade, the student may be allowed a second examination within one month, or a specific assignment for subsequent evaluation at the discretion of the examining committee. It may be possible that the student will not be allowed to repeat the examination.

(c) *Final Examination:* Each candidate will take a final oral examination in defense of the dissertation on the recommendation of the doctoral committee. An external examiner, chosen for acknowledged scholarship in the appropriate field of chemistry or biochemistry, will normally be present during the oral examination. The external examiner will be selected by the doctoral committee, subject to the approval of the Dean of Graduate Studies and Research. The examination will be public and will involve a short seminar presentation by the candidate. The examination will be chaired by the Dean of Graduate Studies and Research or delegate.

THE MASTER OF SCIENCE DEGREE

In addition to the general requirements and stipulations outlined in 1.6.2 for the Master's degree, the following requirements must be met by students proceeding to the M.Sc. degree.

1) *Course Work:* Candidates must complete successfully at least three courses chosen from the available graduate offerings in the student's field or from related and cognate courses, with the approval of the Program Committee. The student may be required to take additional courses, as stipulated by the student's Master's committee.

2) *Seminars:* In addition to the above course work, students must attend the regular departmental Seminar (59-795) throughout their M.Sc. studies as a fulfilment of this requirement.

3) *Thesis:* A student must undertake original research and embody the results in a thesis (59-797). The student will then be examined by a committee.

A student who fails to achieve satisfactory performance in all aspects of the program (e.g., course work, seminars, thesis work or major critique) may be required to withdraw.

4) *Master's Committee and Final Examinations:* The Master's committee is chosen in the manner described in 1.6.2. The final examination will take the form of an open seminar in the presence of the Master's committee (see 1.6.3). The examination will be open to the public.

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- Economics: Programs
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Electrical Engineering: Graduate Faculty

- Electrical Engineering:
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Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
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Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
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- [IMSE: Courses](#)

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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
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Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
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Psychology: Graduate Faculty

- Psychology: Programs
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Social Work: Graduate
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Sociology: Graduate Faculty

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Areas Of Specialization

Civil and Environmental Engineering offers programs of graduate studies and research leading to the degrees of Doctor of Philosophy, Master of Applied Science and Master of Engineering. The Ph.D., M.A.Sc. and M.Eng degrees may be obtained in either Environmental Engineering or Civil Engineering. Within Civil Engineering, the available fields are Structural Engineering and Water Resources Engineering. In the Environmental Engineering program, research focuses on air and water quality and modeling, wastewater and industrial waste treatment, and ground water contamination. In the Water Resources field, research is in hydraulics, hydrology, and hydrogeology. In the Structures field, research encompasses ACM, structural dynamics, fatigue damage assessment, steel, concrete technology, soil mechanics, and foundations.

Faculty

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- Business: Courses

Chemistry and Biochemistry: Graduate Faculty

- Chemistry and Biochemistry: Programs
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Communication Studies: Graduate Faculty

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Computer Science: Graduate Faculty

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Philosophy: Graduate Faculty

- Philosophy: Programs
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Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
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- Political Science: Programs
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Psychology: Graduate Faculty

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Social Work: Graduate
Faculty

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Sociology: Graduate Faculty

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M.A. IN COMMUNICATION AND SOCIAL JUSTICE

[Important Dates: 2007-08](#)

Admission Requirements

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Applicants should submit a portfolio consisting of : (i) a completed application form; (ii) a personal profile in accordance with the format prescribed by the Program; (iii) a C.V.; (iv) an official transcript of grades attained in undergraduate courses; (v) two letters of reference; and (vi) a sample of writing from undergraduate courses and/or a media production or multimedia portfolio. Normally, successful applicants will have an Honours B.A. in Communication or a cognate discipline; however, students lacking this formal requirement but having equivalent qualifications (for example, significant experience with a social justice agency or having engaged for a significant time in social justice related activities) are also encouraged to apply. Students lacking formal admission requirements may be required to enroll in a make-up year.

[Programs Offered - Overview](#)

Program Curriculum Structure

[Application Procedures](#)

Students choosing to prepare a thesis will be required to complete four courses in addition to the thesis, two of which must be the Pro-Seminar ([40-500](#)) and Critical Communication Theories ([40-501](#)). Students electing not to prepare a thesis will be required to complete six courses, two of which must be [40-500](#) and [40-501](#); they must also prepare a major paper which may evolve from one of the courses; presentation of the paper proposal and its defense, however, will be open to all faculty and students, as will be the case for all thesis proposals and defences. (Courses taken in other programs may be counted for credit with the prior permission of the Graduate Chair.)

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Faculty

- Biological Sciences: Programs
- Biological Sciences: Courses

Odette School of Business: Graduate Faculty

- Business: Programs
- Business: Courses

Chemistry and Biochemistry: Graduate Faculty

- Chemistry and Biochemistry: Programs
- Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

- Communications Studies: Programs
- Communciation Studies: Courses

Computer Science: Graduate Faculty

- Computer Science: Programs
- Computer Science: Courses

Earth Sciences: Graduate Faculty

- Earth Sciences: Programs
- Earth Sciences: Courses

[Economics: Graduate Faculty](#)

- [Economics: Programs](#)
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[Faculty of Education: Graduate Faculty](#)

- [Education: Programs](#)
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[Civil and Environmental Engineering \(CEE\): Graduate Faculty](#)

- [CEE: Areas of Specialization](#)
- [CEE: Courses](#)

[Electrical Engineering: Graduate Faculty](#)

- [Electrical Engineering:
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- [Electrical Engineering:
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[Engineering Materials: Graduate Faculty](#)

- [Engineering Materials:
Areas of Specialization](#)
- [Engineering Materials:
Courses](#)

[Industrial and Manufacturing Systems Engineering \(IMSE\): Graduate Faculty](#)

- [IMSE: Areas of
Specialization](#)

- [IMSE: Courses](#)

[Mechanical Engineering:
Graduate Faculty](#)

- [Mechanical Engineering:
Areas of Specialization](#)
- [Mechanical Engineering:
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[English: Graduate Faculty](#)

- [English: Programs](#)
- [English: Courses](#)

[Environmental Science
\(GLIER\): Graduate Faculty](#)

- [ES: Programs](#)
- [ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)
- [History: Courses](#)

[Faculty of Human Kinetics:
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- [Kinesiology: Programs](#)
- [Kinesiology: Courses](#)

[Mathematics and Statistics:
Graduate Faculty](#)

- [Mathematics and Statistics:
Programs](#)
- [Mathematics and Statistics:
Courses](#)

Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

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COMPUTER SCIENCE: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
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Computer Science (MSc)
Computer Science (PhD)

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THE DOCTOR OF PHILOSOPHY DEGREE

The general regulations for the Degree of the Doctor of Philosophy (Ph.D.) at the University of Windsor, as set out in Section 1.5 of the Calendar of the Faculty of Graduate Studies and Research, will apply together with the more specific requirements for the degree of Ph.D. in Computer Science given in the following section. For admission, continuation in good standing, and graduation, students must satisfy both the general university regulations and the specific regulations for Computer Science.

Admission Requirements

In order to be considered for admission to the doctoral program in Computer Science, applicants must have completed a thesis-based Master's degree in Computer Science, or, have completed a course-based Master's degree in Computer Science, and have demonstrated to the Admissions Committee, the ability to conduct independent research through the completion of research-oriented project work or appropriate research experience in industry or academia.

Outline of Degree Requirements

All Ph.D. students must fulfill the following graduate academic requirements:

- (a) A qualifying examination within four months after entering the program.
- (b) No less than two and usually no more than four graduate courses.
- (c) A comprehensive examination within two years after entering the program.
- (d) A research proposal within two years of entering the program.
- (e) Submission of an annual progress report.
- (f) Presentation of three seminars, including the research proposal.
- (g) A final examination consisting of a Ph.D. dissertation defense ([60-798](#)).

Qualifying Examination

The qualifying examination must be taken by all students entering the doctoral program.

The qualifying examination is intended to ensure that the student has a mastery of the fundamentals in Computer Science in order to undertake research. This is a breadth requirement in that it does not require the student to be able to undertake research in each of the fundamental areas. Rather, the student must demonstrate knowledge, in each of the fundamental areas, at a level that would be expected of a graduate from a four-year honours Computer Science university-degree program.

The student must obtain at least an overall grade of B in the tests and/or course works done for the qualifying examination.

Faculty

• Biological Sciences:
Programs

• Biological Sciences:
Courses

Odette School of Business:
Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

• Chemistry and Biochemistry:
Programs

• Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

• Communications Studies:
Programs

• Communication Studies:
Courses

Computer Science: Graduate
Faculty

• Computer Science:
Programs

• Computer Science: Courses

Earth Sciences: Graduate
Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

Graduate Courses

Each student must complete no less than two and usually no more than four graduate Computer Science courses, not including those taken for credit in a Master's degree, and not including seminar or thesis courses. Graduate course selection will be determined by the student's Doctoral Committee. Graduate credit will be given for a grade of B- or higher in a graduate course.

Comprehensive Examination

The comprehensive examination is one in which the student is asked to demonstrate a reasonable mastery of the field of specialization; it is designed to test the student's command of knowledge and ability to integrate that knowledge, after completion of all or most of the graduate course work. Normally, this examination is completed during the second year of graduate study and is a prerequisite to admission to candidacy.

Admission to Candidacy

A student is admitted to candidacy when the student has passed the qualifying examination, has completed all of the required graduate courses, and has passed the comprehensive examination.

A detailed description of the regulation for the doctoral program can be obtained from the graduate secretary of the School of Computer Science.

THE MASTER OF SCIENCE DEGREE

Admission Requirements

Graduates of the University of Windsor or of other recognized colleges or universities may be admitted to programs leading to the Master's degree. A student with an honours Bachelor's degree or equivalent with adequate specialization in Computer Science and with at least B standing in the major subject may be admitted to a minimum one-year Master's program (II Master's Candidate). A student with an honours Bachelor's degree in a related subject and with at least B standing in the major subject may be admitted to a minimum two-year Master's program (I Master's Qualifying followed by II Master's Candidate) or to a minimum two-year II Master's Candidate program depending upon prior qualifications.

Students with deficiencies in some areas of Computer Science may be required to make up those deficiencies by registering in undergraduate courses prior to or as part of their graduate program or by following a program of supervised reading.

Program Requirements

1) The requirements for the degree of Master of Science will be satisfied by pursuing a program of studies consisting of six approved courses and a thesis. (A thesis is a major research project which must involve substantial innovative work generally culminating in original results.)

2) With prior approval of the graduate coordinator, candidates may be permitted to include at most one advanced undergraduate computer science course in their program.

3) With prior approval of the graduate coordinator, candidates may be permitted to include graduate courses offered by other departments in their program.

4) No student will be allowed to include in his or her program a course which

Economics: Graduate Faculty

substantially overlaps a course previously taken.

- Economics: Programs
- Economics: Courses

5) All candidates' programs are subject to approval by the Computer Science program graduate committee.

A student who fails to achieve satisfactory performance in all aspects of the program (course work, thesis or major paper) may be required to withdraw.

Faculty of Education:
Graduate Faculty

The Master's thesis committee is chosen in the manner described in 1.6.2 of this Graduate Calendar. The final examination will take the form of an open seminar in the presence of the Master's committee. The examination will be open to the public.

Each student must obtain approval of his or her program, in writing, from the graduate coordinator within three weeks of registration. Subsequent changes require written approval from the graduate coordinator.

- Education: Programs
- Education: Courses

Faculty of Engineering:
Programs of Study Overview

Civil and Environmental
Engineering (CEE): Graduate
Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering:
Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials:
Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing
Systems Engineering (IMSE):
Graduate Faculty

- IMSE: Areas of
Specialization

- [IMSE: Courses](#)

[Mechanical Engineering:
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- [Mechanical Engineering:
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[English: Graduate Faculty](#)

- [English: Programs](#)
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[History: Graduate Faculty](#)

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[Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

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[Earth Sciences \(MSc\)](#)
[Earth Sciences \(PhD\)](#)

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THE DOCTOR OF PHILOSOPHY DEGREE

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In addition to the general requirements outlined in 1.5, the following requirements must be met by all students proceeding to the Ph.D. degree.

[Important Dates: 2007-08](#)

Admission Requirements

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

The normal requirement for entry into the Ph.D. program shall be an M.Sc. in Earth Sciences or an appropriate degree in a cognate discipline. Students who have enrolled in the M.Sc. program may apply to transfer to the Ph.D. program after one year of registration, and must have achieved a minimum A- average in course work and have a strong recommendation from their thesis committee.

[Programs Offered - Overview](#)

Program Requirements and Structure

[Application Procedures](#)

Students entering the Ph.D. program with an M.Sc. degree will be required to:

- a) take a minimum of four, one-semester courses, including the doctoral research proposal and graduate seminar courses.
- b) Additional courses may be required if the doctoral committee feels that a particular area of the student's background needs to be strengthened.

[Faculty Regulations](#)

The required courses will be chosen in the context of the student's previous education to ensure a sufficient intellectual challenge, commensurate with the Ph.D. degree.

[The Degree of Doctor of
Philosophy](#)

Students transferring into the Ph.D. program after having completed one year of the M.Sc. degree will be required to take a minimum of six courses in total, including the doctoral research proposal and graduate seminar courses.

[The Master's Degree](#)

Grading: The minimum passing grade in graduate courses is "B-". Any student whose performance is deemed unsatisfactory in course work or research will be required to withdraw.

[Research Institutes](#)

Doctoral Committee: The doctoral committee shall comprise the advisor(s), two other faculty members from the Department of Earth Sciences and one faculty member from another department at the University of Windsor. Other committee members can be added where appropriate (e.g. from other universities or from industry).

[General Courses, FGSR](#)

Research Proposals: Doctoral candidates will be required to prepare research proposals that must be successfully defended in a public forum, prior to continuation in the program. Presentation of the research proposal will normally be at the end of the first calendar year after enrollment.

[Biological Sciences: Graduate](#)

Dissertation: The student will be required to submit a dissertation that is a compilation

Faculty

• Biological Sciences: Programs

• Biological Sciences: Courses

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

of original research carried out by the student, under the supervision of the student's advisor(s) and the doctoral committee. The dissertation may be submitted in a traditional format or as a compilation of published papers and/or manuscripts, linked by introductory and conclusion chapters. In the latter case, the contribution of the student to any jointly authored papers must be clearly stated and justified.

Progress reports: The student will submit annual research progress reports to the doctoral committee. Continuation in the program is dependent on a satisfactory progress report. The Faculty of Graduate Studies and Research also monitors student progress via an annual progress report submitted by the student and supervisor.

Examinations

Comprehensive Examination: The comprehensive examination will normally occur at the end of the first year and will typically be held in conjunction with the defense of the research proposal. However, the two may be held at different times for logistical or other reasons. The comprehensive exam is complementary to the defense of the research proposal, and is designed to assess whether the student's scientific knowledge is appropriate for continuance in the Ph.D. program, and to ensure that the student has the background knowledge that is required for their research. A pass/fail decision will be by a majority vote of the committee. If a student should fail the comprehensive exam, he or she will be allowed to re-sit the exam within a four-month period after the first exam. The student will be required to withdraw from the program should he or she fail the second exam.

Defense: The dissertation will be defended by the student and examined by an examination committee in a public defense. The examination committee will comprise the student's doctoral committee and an external examiner.

THE MASTER OF SCIENCE DEGREE

Program Requirements

1) *Course Requirements:* The candidate for a Master's degree will be required to take [61-580](#) and [61-582](#), plus a minimum of two graduate courses normally from Earth Sciences but may include courses from cognate disciplines with prior approval. Not more than one course may be in Special Topics ([61-590](#)), and not more than two courses may be from the same instructor. Additional 500-level Science or Engineering courses may be taken on the recommendation of the student's Master's Committee. Up to three additional courses may be required to be taken as prerequisites or required background courses. The total of all courses taken shall not exceed eight. The student's Master's Committee shall recommend to the program coordinator all courses to be taken for graduate credit after discussion with the candidate. In addition, original research work must be pursued and embodied in a thesis submitted for degree credit. Credit for graduate study previously undertaken may be given for a maximum of two courses, but the duration of study at the University of Windsor may not be reduced to less than the minimum of one year.

2) *Examination Requirements:* The final examination of a candidate for the Master's degree shall be an oral defense of the thesis at a public lecture.

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- [Economics: Programs](#)
- [Economics: Courses](#)

[Faculty of Education: Graduate Faculty](#)

- [Education: Programs](#)
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- [CEE: Areas of Specialization](#)
- [CEE: Courses](#)

[Electrical Engineering: Graduate Faculty](#)

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[Engineering Materials: Graduate Faculty](#)

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[Industrial and Manufacturing Systems Engineering \(IMSE\): Graduate Faculty](#)

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Specialization](#)

- [IMSE: Courses](#)

[Mechanical Engineering:
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- [Mechanical Engineering:
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[English: Graduate Faculty](#)

- [English: Programs](#)
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[Environmental Science
\(GLIER\): Graduate Faculty](#)

- [ES: Programs](#)
- [ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)
- [History: Courses](#)

[Faculty of Human Kinetics:
Graduate Faculty](#)

- [Kinesiology: Programs](#)
- [Kinesiology: Courses](#)

[Mathematics and Statistics:
Graduate Faculty](#)

- [Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

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ECONOMICS: PROGRAMS OF STUDY

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Economics (MA)

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THE MASTER OF ARTS DEGREE

[Statistics Canada Disclaimer](#)

Admission Requirements

[Important Dates: 2007-08](#)

1) A student with an honours Bachelor's degree in Economics or its equivalent, with at least a major average of B, may be admitted to a minimum one-year Master's program. Applicants are expected to have completed one course in each of calculus, linear algebra and statistics. Applicants who have not completed the above mathematics requirements are encouraged to do so prior to beginning their graduate course work. 2) A student with a general degree, or an honours graduate in another discipline, with at least a B standing, may be admitted to a minimum two-year Master's program.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Program Requirements

[Programs Offered - Overview](#)

1) Students in the two-year program are required to take a make-up or qualifying year in their first year of the M.A. program. Selection of courses is to be made in consultation with a graduate advisor.

[Application Procedures](#)

2) Students in the one-year M.A. program (Candidate year) are required to complete:

[Faculty Regulations](#)

a) eight graduate courses and a major paper normally to be in conjunction with one of the courses OR nine graduate courses (no major paper);
b) at least one course in microeconomics, one in macroeconomics and one in econometrics. Students intending to enter a Ph.D. program are advised to take [41-501](#), [41-502](#), [41-503](#), [41-504](#), [41-541](#), and [41-542](#).

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[Biological Sciences: Graduate](#)

Faculty

- Biological Sciences:
Programs

- Biological Sciences:
Courses

Odette School of Business:
Graduate Faculty

- Business: Programs

- Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

- Chemistry and Biochemistry:
Programs

- Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

- Communications Studies:
Programs

- Communciation Studies:
Courses

Computer Science: Graduate
Faculty

- Computer Science:
Programs

- Computer Science: Courses

Earth Sciences: Graduate
Faculty

- Earth Sciences: Programs

- Earth Sciences: Courses

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

- [IMSE: Courses](#)

[Mechanical Engineering:
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[English: Graduate Faculty](#)

- [English: Programs](#)
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[Environmental Science
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[ES: Programs](#)

[ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)
- [History: Courses](#)

[Faculty of Human Kinetics:
Graduate Faculty](#)

- [Kinesiology: Programs](#)
- [Kinesiology: Courses](#)

[Mathematics and Statistics:
Graduate Faculty](#)

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Programs](#)
- [Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

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FACULTY OF EDUCATION: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
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[Educational Studies \(PhD\)](#)

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JOINT DOCTOR OF PHILOSOPHY IN EDUCATIONAL STUDIES

[Statistics Canada Disclaimer](#)

The Joint Ph.D. in Educational Studies is offered jointly by Brock University, Lakehead University, The University of Western Ontario, and the University of Windsor. The designation of "home university" is applied to the home university of the doctoral candidate's dissertation supervisor. The student has the right to take courses and seminars or to use the academic facilities at any of the participating universities in accordance with the approved plan.

[Important Dates: 2007-08](#)

The regulations governing the preparation of theses and conduct of examinations will be those of the supervisor's home university.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

The degree requirements, regulations and procedures for the Joint Ph.D. program have been approved by the appropriate governing body of each institution. Where there is a conflict in regulations and procedures:

[Programs Offered - Overview](#)

- (a) in academic matters, the regulations of the institution offering the course will prevail;
- (b) in non-academic matters, the regulations of the institution at which the student is registered will prevail.

[Application Procedures](#)

PROGRAM GOALS AND OBJECTIVES

[Faculty Regulations](#)

The joint program will accomplish the following goals:

[The Degree of Doctor of
Philosophy](#)

- 1) provide greater access to advanced study in education for qualified candidates across a wider geographic range in the province;
- 2) promote the growth of research activity and professional development through collaboration among practitioners, scholars, educational institutions, and Faculties of Education;
- 3) foster inter-university links and promote partnerships among Ontario universities;
- 4) further the expansion of research culture and service throughout the province; and
- 5) contribute to the renewal of the professoriate and educational leadership in Ontario during the upcoming period of heavy retirement in the universities and school systems.

[The Master's Degree](#)

[Research Institutes](#)

The objectives of the program are to produce graduate students who will:

[General Courses, FGSR](#)

- 1) contribute to the development of knowledge and expertise in teaching/ learning at all levels on the education continuum;

[Biological Sciences: Graduate](#)

- 2) contribute to the solution of problems/issues in Canadian education;

Faculty

• Biological Sciences: Programs

3) promote scholarly enquiry and the development of methodological advances in the study of education;

• Biological Sciences: Courses

4) integrate theory and practice in education; and

5) assume positions of leadership in Faculties of Education, school systems, and other public- and private-sector institutions concerned with education.

Odette School of Business: Graduate Faculty

• Business: Programs

ADMISSION REQUIREMENTS

Normally, the minimum academic requirement for admission to the Ph.D. is successful completion of a Master of Education or Master of Arts in Education with an A standing.

• Business: Courses

In exceptional circumstances, applicants with lower formal academic qualifications but with a strong track record of professional experience related to the proposed area of doctoral study may be admitted. In these cases, however, the Admissions Committee may place additional requirements upon the applicant. Additional requirements will be stated on the offer of admission.

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

Applicants must provide evidence of research competence normally demonstrated by a master's thesis.

• Chemistry and Biochemistry: Courses

English is the primary language of communication and instruction in the program. Applicants from other countries who have not completed a degree at a university where the primary language of instruction is English must pass the Test of English as a Foreign Language (TOEFL) with a minimum score of 600 (250 computer-based) or an equivalent demonstration of proficiency.

Candidates who are working on the degree at a distance from the home university must purchase the software and access to the internet which will enable them to participate fully in the required courses.

Communication Studies: Graduate Faculty

• Communications Studies: Programs

ADMISSION WITH ADVANCED STANDING

• Communication Studies: Courses

Students may receive advance credit for a maximum of one-half course specialization elective at the graduate level provided that this course has not been credited to a degree or certificate already awarded, is relevant to the proposed area of study and has been taken within three years of admission. Requests for advanced credit must be declared prior to admission. No substitution may be made for Core Seminars I and II or the Joint Specialization Elective via distance education.

Computer Science: Graduate Faculty

• Computer Science: Programs

RESEARCH PLAN

• Computer Science: Courses

Applicants must submit a description of their proposed area of research (approximately 2-3 typed pages). When an applicant meets the basic requirements for admission, the potential supervisor and/or the Program Director will assist the applicant in developing a plan of study which will be presented to the Program Committee for approval. If approved, the applicant will proceed to register as a doctoral student at the home university of the dissertation supervisor and will be subject to the general degree regulations of that university. The offer of admission will be made to the applicant by the home university.

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

Dissertation supervisors will be required to report candidates' progress annually to the Program Committee and to appropriate authorities at the participating universities. Normally, candidates will be expected to complete course requirements and the comprehensive portfolio, and to submit a research proposal within three years of their initial registration. Changes to the approved plan of study must be approved in advance by the Program Director in consultation with the candidate and the supervisor.

• Earth Sciences: Courses

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

PROGRAM FIELDS OF STUDY

1) Cognition and Learning: Cognition and learning draws primarily upon cognitive, developmental, social, and educational psychology as well as science and technology, to examine critically the cognitive, behavioural, emotional, and social processes of educators and students as they engage in teaching and learning. Integral components of this field include, but are not limited to, issues concerning best practices, remedial and contemporary instruction, assessment and evaluation, professional development, curriculum development and implementation, metacognition, and learning theories.

2) Educational Leadership and Policy Studies: This field of study encompasses a range of humanities and social science disciplines to explore the morale, social, and cultural purposes of educational organizations, policy and leadership. It draws upon the works of key scholars in organizational, administrative and policy studies to articulate the philosophical, theoretical and methodological frameworks that inform scholarship and practice. These frameworks situate the major issues and debates confronting educational systems within their larger socio-political and socio-cultural contexts.

3) Social/Cultural/Political Contexts of Education: Education occurs in a dynamic, complex, and contested milieu. The Social/Cultural/Political Contexts of Education field of study critically explores the interplay between culture and education from varied historical, philosophical, and theoretical perspectives with the intent of fostering emancipatory research and democratic practice. Consideration is given but not limited to social constructs of race, class, gender, sexuality, and ability/disability, and how they intersect and influence educational experiences.

Applicants to the program must declare a field of study prior to admission to the program.

PROGRAM REQUIREMENTS

Doctoral candidates must be familiar with the academic regulations governing graduate studies at the home university.

Course Requirements

- (a) Core Seminar I ([80-602](#)) and Core Seminar II ([80-604](#));
- (b) The Specialized Elective ([80-651](#)), one Joint Ph.D. Specialization Elective Course via distance education, and one additional Specialization Elective Course. Candidates may meet the requirement for the latter through a graduate level course offered at any of the participating institutions;
- (c) Research Proposal Colloquium ([80-669](#)) (via distance education). (Prerequisite: must have completed two terms of full-time residency or equivalent.)

Comprehensive Portfolio

The Comprehensive Portfolio ([80-680](#)) requires doctoral candidates to demonstrate their potential as scholars through the satisfactory completion of authentic tasks. The criteria used by the dissertation supervisory committee to set tasks and assess a candidate's performance are:

- (a) an understanding of the concepts, theories, and issues in the field of study;
- (b) a knowledge of current literature and research methods in the field of study;
- (c) the ability to analyze and synthesize current literature on a specific problem within the field of study;
- (d) an understanding of and ability to critique research in the field of study and research paradigms.

- [IMSE: Courses](#)

The tasks candidates are expected to complete include the dissertation research proposal, and three other tasks. Candidates must defend their portfolios.

[Mechanical Engineering:
Graduate Faculty](#)

The candidate's defence will be evaluated by the dissertation supervisory committee and at least one other member of the core faculty selected by the Program Director. Candidates are required to present their completed portfolio to an audience in a forum such as the Core Seminar.

- [Mechanical Engineering:
Areas of Specialization](#)

Candidates may not begin their dissertation research until the portfolio requirements have been completed successfully.

- [Mechanical Engineering:
Courses](#)

Dissertation

[English: Graduate Faculty](#)

The Dissertation supervisory committee will involve faculty from at least two participating universities, including whenever possible and reasonable, a member from the university closest to the candidate's home to serve as co-supervisor in cases where the supervisor is at some distance. The regulations and procedures governing the preparation of theses and conduct of examinations will be those of the supervisor's university.

- [English: Programs](#)

- [English: Courses](#)

Residence

[Environmental Science
\(GLIER\): Graduate Faculty](#)

Candidates must meet a minimum residency of four terms. Two terms of residency may be fulfilled by completion of the Core Seminars I and II. The other two terms of residency must be consecutive. It is strongly recommended that candidates complete two of the terms of residency after they have defended their comprehensive portfolio and are authorized to commence their doctoral research. Credit for residency may be given, with the approval of the Program Committee and the home university, for research carried out off-campus.

[ES: Programs](#)

[ES: Courses](#)

Candidates are required to maintain continuous registration. They shall complete the requirements for the degree within a minimum of three years and a maximum of six years.

[History: Graduate Faculty](#)

- [History: Programs](#)

Recommendations for a time extension or leave of absence are subject to the regulations and procedures at the home university and must be approved in advance by the supervisor and the Joint Program Committee.

- [History: Courses](#)

DOCTORAL COURSES

[Faculty of Human Kinetics:
Graduate Faculty](#)

Core Seminars

- [Kinesiology: Programs](#)

[80-602](#). Core Seminar I: Research, Theories, and Issues
[80-604](#). Core Seminar II: Research, Theories, and Issues

- [Kinesiology: Courses](#)

Specialization Elective Courses

[Mathematics and Statistics:
Graduate Faculty](#)

Policy and Leadership

[80-621](#). Educational Leadership and Policy Studies

- [Mathematics and Statistics:
Programs](#)

Sociocultural Contexts of Education

[80-631](#). Social/Cultural/Political Contexts of Education

- [Mathematics and Statistics:
Courses](#)

Cognition and Learning

[80-641](#). Conceptual Bases for Cognition and Learning

Other Required Courses

[80-651](#). The Specialized Elective

Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

80-669. Research Proposal Colloquium
80-680. Comprehensive Portfolio
80-798. Doctoral Dissertation

THE MASTER OF EDUCATION DEGREE

The objectives of the Master of Education program are to provide candidates with opportunities to develop:

- 1) a commitment to intellectual enquiry and scholarship as a basis for continuing professional growth;
- 2) a knowledge of current theory and research relevant to the curriculum and administration of elementary and secondary schools; and
- 3) an understanding of, and respect for, the principles of educational research.

Admission Requirements

1) In addition to the requirements set forth in 1.3 and 1.6.1 for admission to the Faculty of Graduate Studies and Research, and to programs leading to a Master's degree, applicants to the Master of Education program must:

- (a) present an undergraduate degree from an approved university with standing in the B range overall and at least B standing in the final two years of study;
- (b) present a Bachelor of Education degree with standing in the B range or the equivalent professional preparation;
- (c) have at least one year of successful professional experience in education;
- (d) submit a "Statement of Personal Objectives" outlining the applicant's professional background and reasons for seeking a graduate degree in education.

2) Applicants who fulfill the requirements above with the exception of (c) may be considered if they hold an honours Bachelor's degree or the equivalent with standing in the B range overall and at least a B standing in the final two years of study.

Moreover, in exceptional cases, applicants may be considered who do not possess a Bachelor of Education degree or equivalent, but who hold an honours Bachelor's degree or the equivalent with standing in the B range overall and at least a B standing in the last two years, and who can demonstrate experience, interests, and motivation that make them appropriate applicants to the program.

3) *Advanced Standing*: Applicants may be granted credit for up to two graduate term courses completed before application to the Master of Education program and taken in another program at the University of Windsor or at another accredited institution. Requests for advanced standing will be considered only at the time of application and only for graduate courses completed with at least B standing. The Faculty will not grant credit for any course taken more than seven years before all the requirements for the degree have been fulfilled.

4) Admission to the Master of Education program is to the II Master's Candidate level.

Program Requirements

1) Candidates for the Master of Education degree will pursue studies in one of two areas of concentration:
(a) Curriculum Studies;
(b) Educational Administration.

2) Candidates will follow either a major paper, a thesis, or a course-based program.

• [Visual Arts: Programs](#)

• [Visual Arts: Courses](#)

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Those who wish to include a thesis in their program must request approval from the Graduate Committee of the Faculty. Normally, the Committee will not consider such requests from part-time candidates until four courses have been completed, which should include [80-510](#) (Statistics in Education) and [80-527](#) (Research in Education).

Additional information concerning the procedures for theses and major papers may be obtained from the Coordinator of Graduate Studies.

3) In addition to the general requirements for a Master's degree set forth in "[The Master's Degree](#)" section, candidates in:

the thesis and major paper program are required to complete successfully the equivalent of a minimum of ten term courses and the comprehensive examination in Education. Specific requirements include:

- (a) three compulsory courses, [80-510](#) (Statistics in Education), [80-527](#) (Research in Education), and [80-524](#) (Fundamentals of Curriculum Theory and Development) or [82-529](#) (Theories of Educational Administration), depending on their area of concentration;
- (b) a research project resulting in either a major paper ([80-796](#)), with the value of two term courses, or a thesis ([80-797](#)), with the value of four term courses;
- (c) candidates proceeding to the degree by major paper are required to complete five additional courses, at least three of which must be chosen from the option courses listed for their area of concentration;
- (d) candidates proceeding to the degree by thesis must complete three additional courses, at least two of which must be selected from the option courses listed for their area of concentration;
- (e) in the case of candidates following thesis programs, the comprehensive examination is the responsibility of their thesis committees.

the course-based program are required to successfully complete:

- (a) [80-527](#) (Research in Education), and [80-795](#) (Final Project Seminar)
- (b) one of [80-510](#) (Statistics in Education) or [80-530](#) (Qualitative Methods in Educational Research)
- (c) one of [80-524](#) (Fundamentals of Curriculum Theory and Development) or [82-529](#) (Theories of Educational Administration); and
- (d) six optional courses from the list of courses under "Studies in the Area of Concentration", to include a minimum of four courses from the candidate's area of concentration.

4) Candidates with previous courses in research methods or statistics may request the Graduate Committee of the Faculty for permission to substitute other courses for either one or both of [80-527](#) and [80-510](#).

5) Transfer Credit: While the student is registered in the M.Ed. program, credit for up to two graduate term courses normally may be applied towards the degree from another Faculty at the University of Windsor or transferred from another accredited institution. Candidates must receive the approval of the Executive Dean of Graduate Studies and Research or designate before taking such courses. Credit will be granted only for courses completed with at least a B standing.

6) Full-time candidates must complete all requirements for the degree within three years of their first registration.

7) Part-time students may not carry more than two courses in any term and must complete all requirements for the degree within five years of their first registration.

STUDIES IN THE AREA OF CONCENTRATION

Compulsory Courses

- 80-510. Statistics in Education
- 80-527. Research in Education
- 80-524. Fundamentals of Curriculum Theory and Development*
- 80-795. Final Project Seminar**
- 80-796. Major Paper**
- 80-797. Thesis**
- 82-529. Theories of Educational Administration***

* Compulsory for students in Curriculum Studies.

** All students must complete either a Final Project, a Major Paper or a Thesis.

*** Compulsory for students in Educational Administration.

Educational Administration Options

- 80-530. Qualitative Methods in Educational Research
- 80-531. Supervision of the Instructional Process
- 80-534. Individual Reading
- 80-555. Strategies for the Implementation of Change in Education
- 80-591. Special Topics in Education
- 82-529. Theories of Educational Administration
- 82-532. Organization and Administration of the School
- 82-535. Organizational Behaviour in Educational Institutions
- 82-550. Issues in Education
- 82-560. Politics of Education
- 82-561. Legal Aspects of Education
- 82-562. Educational Finance
- 82-565. Sociological Aspects of Education
- 82-566. Interpersonal Relationships in Education

Curriculum Studies Options

- 80-524. Fundamentals of Curriculum Theory and Development
- 80-530. Qualitative Methods in Educational Research
- 80-534. Individual Reading
- 80-554. Fundamentals of Instructional Design
- 80-591. Special Topics in Education
- 81-503. The Psychology of Learning and Teaching
- 81-537. Language Arts in the Elementary School
- 81-539. Second Language Teaching: Theories and Applications
- 81-541. The Social Sciences Curriculum
- 81-547. Learning in Science
- 81-551. Microcomputers for Educators
- 81-552. Curriculum Developments in Mathematics Education
- 81-553. The Teaching and Learning of Mathematics
- 81-556. Approaches to Literacy Development
- 81-557. The English Language Arts
- 81-558. Psychology of Learning Problems
- 81-572. Theory and Practice in Early Childhood Education



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ELECTRICAL ENGINEERING: AREAS OF SPECIALIZATION

Areas Of Specialization

Electrical Engineering offers graduate programs leading to the degrees of Doctor of Philosophy (Ph.D.), Master of Applied Science (M.A.Sc.) and Master of Engineering (M.Eng.) Research is carried out in the broadly defined area of Signals and Systems.

Within the area of Signals and Systems such research topics as digital signal processing, microsystems, communications and computers are investigated.

Faculty

- Biological Sciences: Programs
- Biological Sciences: Courses

Odette School of Business: Graduate Faculty

- Business: Programs
- Business: Courses

Chemistry and Biochemistry: Graduate Faculty

- Chemistry and Biochemistry: Programs
- Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

- Communications Studies: Programs
- Communication Studies: Courses

Computer Science: Graduate Faculty

- Computer Science: Programs
- Computer Science: Courses

Earth Sciences: Graduate Faculty

- Earth Sciences: Programs
- Earth Sciences: Courses

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education:
Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering:
Programs of Study Overview

Civil and Environmental
Engineering (CEE): Graduate
Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering:
Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials:
Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing
Systems Engineering (IMSE):
Graduate Faculty

- IMSE: Areas of
Specialization

• IMSE: Courses

Mechanical Engineering:
Graduate Faculty

- Mechanical Engineering:
Areas of Specialization
- Mechanical Engineering:
Courses

English: Graduate Faculty

- English: Programs
- English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

- History: Programs
- History: Courses

Faculty of Human Kinetics:
Graduate Faculty

- Kinesiology: Programs
- Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

- Mathematics and Statistics:
Programs
- Mathematics and Statistics:
Courses

Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
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Visual Arts: Graduate Faculty

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ENGINEERING MATERIALS: AREAS OF SPECIALIZATION

Ph.D., M.A.Sc. and M.Eng. graduate programs in Engineering Materials are administered by Mechanical, Automotive and Materials Engineering upon the advice of its Graduate Studies Committee for Engineering Materials. Research is concentrated on the physical, mechanical, tribological, chemical and processing aspects of materials. The program hosts one NSERC/ Industrial Research Chair: i) Chair in Tribology of Light-weight Materials. Particular research topics include:

Material Design, Development: Aluminum alloys (wrought, cast, particulate, reinforced), structure refinement, nanocrystalline alloys, solidification and precipitation processing, metal hydrides for energy applications, ceramics and cementitious materials, metallic forms, materials for batteries and fuel cells, smart materials, computational materials science.

Material Processing: Surface coatings, surface modification technologies (PVD, CVD, thermal spraying) welding, machining, galvanizing and galvannealing of steels, steel fabrication, nanofabrication.

Mechanical Properties of Materials: Creep and fatigue behaviour, deformation mechanisms, computer simulation of deformation, corrosion, erosion, impact testing, crashworthiness evaluation.

Light Metals Casting Technology: Advanced foundry processes for lightweight castings for automotive engines; aluminum and magnesium alloys; new generation foundry materials, solidification modelling, die casting process control.

Tribology (Wear) Research: Friction and wear of metal matrix composites, coatings for tribological applications, development of wear resistant materials for automotive applications, micromechanical modeling of tribological processes.

Faculty

- Biological Sciences:
Programs

- Biological Sciences:
Courses

Odette School of Business:
Graduate Faculty

- Business: Programs

- Business: Courses

Chemistry and Biochemistry:
Graduate Faculty

- Chemistry and Biochemistry:
Programs

- Chemistry and Biochemistry:
Courses

Communication Studies:
Graduate Faculty

- Communications Studies:
Programs

- Communication Studies:
Courses

Computer Science: Graduate
Faculty

- Computer Science:
Programs

- Computer Science: Courses

Earth Sciences: Graduate
Faculty

- Earth Sciences: Programs

- Earth Sciences: Courses

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
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[Mathematics and Statistics:
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Faculty of Nursing: Graduate Faculty

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Philosophy: Graduate Faculty

- [Philosophy: Programs](#)
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Physics: Graduate Faculty

- [Physics: Programs](#)
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Political Science: Graduate Faculty

- [Political Science: Programs](#)
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Psychology: Graduate Faculty

- [Psychology: Programs](#)
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Social Work: Graduate Faculty

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Sociology: Graduate Faculty

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Visual Arts: Graduate Faculty

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Programs of Study

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The English department offers two fields within the M.A. Program in English: Language and Literature and, Creative Writing and Language and Literature. Within the Language and Literature field, there are two options: the Thesis Option and the Course Work Option.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

The Creative Writing and Language and Literature field allows students to combine graduate-level study of literature with advanced work on creative writing in a two-term workshop and by developing a significant independent writing project. Within the Language and Literature field, the Course Work Option offers exposure to a wide variety of topics in literature, composition and rhetoric, and theory. The Thesis Option allows students to investigate a single topic in depth through independent, extended research with faculty supervision.

[Programs Offered - Overview](#)

The specific requirements for each field are:

[Application Procedures](#)

M.A. IN ENGLISH: CREATIVE WRITING AND LANGUAGE AND LITERATURE

[Faculty Regulations](#)

Four graduate seminar courses
[26-590](#). Creative Writing Seminar (over both the Fall and Winter terms)
[26-794](#). Creative Writing Project (a novel, a play, a collection of poems or short stories)

[The Degree of Doctor of
Philosophy](#)

M.A. IN ENGLISH: LANGUAGE AND LITERATURE

THESIS OPTION
Five graduate seminar courses
[26-797](#). Thesis/Project (of at least 20,000 words)

[The Master's Degree](#)

COURSE WORK OPTION
Eight graduate seminar courses.

[Research Institutes](#)

For both fields, students must include [26-500](#), Scholarship and the Profession (or equivalent) in their program in addition to their regular course load.

Admission Requirements

[General Courses, FGSR](#)

In addition to the requirements set forth in 1.3 and 1.6.1 for admission to the Faculty of Graduate Studies and Research and to programs leading to the Master's degree, applicants for admission to the Candidate year in the programs leading to the Master of Arts degree in English should have the following undergraduate preparation:

[Biological Sciences: Graduate](#)

Faculty	1) Some courses, normally four, in the pre- and early-modern periods, that is, from Old English through the Eighteenth Century;
• Biological Sciences: Programs	2) Some courses, normally four, in the modern period, that is, the Nineteenth and Twentieth Centuries, including Canadian and American;
• Biological Sciences: Courses	3) Some courses, normally two, from the areas of Critical History, Theory and Approaches, Scholarship and Bibliography, and Language and Linguistics;
Odette School of Business: Graduate Faculty	4) Additional courses from any of the above areas to make up the total number of courses required for a four-year English B.A.
• Business: Programs	Students who do not have a four-year B.A. or its equivalent may be admitted to the Faculty of Graduate Studies and Research in a qualifying (M1) program. In such a program, the student is expected to register in appropriate undergraduate courses in order to satisfy the requirements above. Alternatively, students who are deficient in any of the stated requirements for admission may be invited or may request to write a qualifying examination (see below, "Qualifying or Placement Examination").
• Business: Courses	
Chemistry and Biochemistry: Graduate Faculty	Students who are admitted to the Faculty of Graduate Studies and Research in the M.A. program will be expected to select courses in their first year to complete the requirements specified above.
• Chemistry and Biochemistry: Programs	In addition to the documents specified in 1.3.2, applicants must submit a "Proposal of Studies" (about 500 words) with their applications indicating the program and option to which they are applying and discussing such issues as their areas of academic or creative interest, their undergraduate training, and their academic or career goals. Students applying to the field in Creative Writing must submit, with their application, a portfolio of representative creative work (20-25 pages). Students with a four-year B.A. in English may apply to either of the fields and to any of the options. Students with interdisciplinary interests, with honours degrees combining English with another discipline, or with abilities or backgrounds that do not correspond to the particular requirements for admission listed above, but who have an overall average of A-, apply to either field but may be required to take additional courses.
• Chemistry and Biochemistry: Courses	
Communication Studies: Graduate Faculty	<i>Qualifying or Placement Examination:</i> An applicant for admission to the Candidate year for the Master's degree who is deficient in any of the stated requirements for admission to this level of graduate study may be invited, or may request, to write a qualifying examination. A similar examination is available as a placement test, on the basis of which students in the two-year M.A. program may be granted advanced standing.
• Communications Studies: Programs	
• Communication Studies: Courses	Students from other universities may arrange to take these examinations in other centres provided the program coordinator is notified well in advance.
Computer Science: Graduate Faculty	<i>Counselling:</i> Students admitted to one of the fields of the M.A. program in English will be assigned a faculty advisor who will be available to counsel them on all aspects of their work. The program coordinator (or a delegate) must approve a student's program of study before registration.
• Computer Science: Programs	
• Computer Science: Courses	<i>Grades:</i> After admission to candidacy, graduate students in the M.A. program in English must maintain at least a B- average, but graduate credit is given only at the A and B level. A student whose grade in a graduate course is less than B- may be allowed to repeat the course or to substitute another for it, at the discretion of the Dean of Graduate Studies and Research and the program coordinator. The student may not repeat more than one course (see 1.4.3).
Earth Sciences: Graduate Faculty	
• Earth Sciences: Programs	
• Earth Sciences: Courses	

[Economics: Graduate Faculty](#)

- [Economics: Programs](#)
- [Economics: Courses](#)

[Faculty of Education: Graduate Faculty](#)

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[Electrical Engineering: Graduate Faculty](#)

- [Electrical Engineering:
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Courses](#)

[Engineering Materials: Graduate Faculty](#)

- [Engineering Materials:
Areas of Specialization](#)
- [Engineering Materials:
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[Industrial and Manufacturing Systems Engineering \(IMSE\): Graduate Faculty](#)

- [IMSE: Areas of
Specialization](#)

- [IMSE: Courses](#)

[Mechanical Engineering:
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[Environmental Science
\(GLIER\): Graduate Faculty](#)

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[Faculty of Human Kinetics:
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[Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
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Philosophy: Graduate Faculty

- Philosophy: Programs
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Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
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Social Work: Graduate
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Sociology: Graduate Faculty

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ENVIRONMENTAL SCIENCE - PROGRAMS OF STUDY

[PROGRAMS OF STUDY
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[Environmental Science \(MSc\)](#)
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[Statement of Responsibility](#)

The Great Lakes Institute for Environmental Research (GLIER) offers a graduate program leading to an M.Sc. in Environmental Science and a Ph.D. in Environmental Science. The GLIER graduate program supports advanced research and develops graduate expertise to assess the effects of multiple stressors on aquatic environments, with an emphasis on large lakes and their watersheds.

[Statistics Canada Disclaimer](#)

[Important Dates: 2007-08](#)

THE DOCTOR OF PHILOSOPHY DEGREE

In addition to the general requirements, the following requirements must be met by all students proceeding to the Ph.D. degree.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Admission Requirements

Initial Application Procedure: The initial application procedure for students who wish to enrol in the Ph.D. program through GLIER includes:

[Programs Offered - Overview](#)

- 1) Completion of the "Application for Admission to the Faculty of Graduate Studies and Research" form;
- 2) two official transcripts of all undergraduate and graduate studies from all colleges and universities attended;
- 3) three confidential letters of reference;
- 4) Graduate Record Examination, if required; and TOEFL results, as required;
- 5) letter of intent by the student that clearly outlines his/her interest in the program, proposed focus of study and the prospective supervisor.

[Application Procedures](#)

[Faculty Regulations](#)

Prospective students will be encouraged to contact a potential supervisor before applying for admission to the GLIER graduate programs. If a suitable supervisor cannot be identified, the student will be dissuaded from applying for admission.

[The Degree of Doctor of
Philosophy](#)

[The Master's Degree](#)

Two streams of Ph.D. applicants are envisaged. Applicants holding an M.Sc. degree from the University of Windsor or from another recognized university may be admitted directly to the GLIER Ph.D. program. Alternatively, students enrolled in the GLIER M.Sc. program who are making exceptional progress may transfer to the PhD program after one year on the recommendation of their Master's Committee and with the approval of the GLIER Graduate Committee and the Faculty of Graduate Studies and Research. Students eligible for transfer will have made outstanding progress in both course work and research, and have a first-author research article submitted to a refereed journal at the time of transfer.

[Research Institutes](#)

[General Courses, FGSR](#)

[Biological Sciences: Graduate](#)

Faculty

• Biological Sciences: Programs

• Biological Sciences: Courses

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

Program Requirements

(1) Students entering the program with an M.Sc. degree must fulfill all requirements listed below:

(a) compliance with regulations outlined in University of Windsor Graduate Calendar;

(b) successful completion during the first year of enrolment in the program of an oral qualifying exam, administered by the student's Doctoral Committee. Students will be required to possess comprehensive knowledge of their field of study as well as any ancillary fields relevant to the dissertation topic (as determined in advance by the Doctoral Committee). Students will be evaluated on a satisfactory/ unsatisfactory basis;

(c) successful completion of the GLIER Multiple Stressors and Environmental Modelling course (one credit). The course will be graded in accordance with university standards;

(d) successful completion of the GLIER Multidisciplinary Graduate Seminar course (this course is taken over two semesters and is equivalent to two credits). The course will be graded in accordance with university standards. All Ph.D. students who have successfully completed this course will be required to audit the course each year following their first year of residency;

(e) any additional course work mandated by the student's Doctoral Committee to eliminate perceived weaknesses in the student's background preparation or to increase awareness of other disciplines;

(f) submission of a Research Progress Report to the Doctoral Committee every six months and meetings with the committee every six months to discuss progress and research plans;

(g) completion of an original research project reported in a dissertation;

(h) defence of the dissertation in a public lecture and before the Doctoral Committee; and

(i) publication of at least one original research article and submission of at least one additional article derived from the dissertation in a refereed journal. Exemption from this requirement is granted only with permission of the Graduate Program Committee.

(2) Students transferring to the Ph.D. program must have received no grade less than A- or satisfactory for all course work taken in the GLIER M.Sc. program. In addition, transfer students must have at least one first-author research article submitted to a refereed journal at the time of transfer. Transfer can be granted only by the Faculty of Graduate Studies and Research acting on a recommendation from the student's Doctoral Committee and the Graduate Program Committee. Students approved for transfer into the Ph.D. program must comply with regulations (a) through (j) above.

In addition to courses offered in the GLIER programs, students will be advised to enroll in additional courses in other AAUs, as needed. It is expected that these courses will offer intensive treatments of particular topics to assist students in resolving perceived weaknesses. These courses are offered in a variety of AAUs including Earth Sciences, Biological Sciences, and Chemistry and Biochemistry and involve various combinations of theory and lab work. All graduate students must complete the GLIER Multidisciplinary Graduate Seminar course and must complete the GLIER Environmental Research Proposal course. The Multiple Stressors and Environmental Modelling Course is required for all Ph.D. students. Other courses will supplement core GLIER courses, be offered on a rotating basis, and be mandated by Doctoral Committees, depending on students' perceived deficiencies in background preparation.

THE MASTER OF SCIENCE DEGREE

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

In addition to the general requirements, the following requirements must be met by all students proceeding to the M.Sc. degree.

Admission Requirements

Applicants must submit a letter of intent that clearly outlines his/her interest in the program, proposed focus of study and the prospective supervisor.

Prospective students will be encouraged to contact a potential supervisor before applying for admission to the GLIER graduate program. If a suitable supervisor cannot be identified, the student will be dissuaded from applying for admission.

For admission to the GLIER M.Sc. program, applicants must hold an appropriate Honours Bachelor's degree (or equivalent) from a recognized university. Students must maintain no less than a B+ average in their final two years of undergraduate, full-time study to be eligible for admission into the GLIER M.Sc. program.

Program Requirements

(a) compliance with regulations outlined in University of Windsor Graduate Calendar;

(b) successful completion of the GLIER Multidisciplinary Graduate Seminar course (this course is taken over the first two semesters and is equivalent to two credits). The course will be graded in accordance with university standards. Following successful completion of this course, all M.Sc. students will be required to continue registering in this course as an audit;

(c) successful completion of the GLIER Environmental Research Proposal course (M.Sc. level). The course will be graded according to university standards.

(d) any additional course work mandated by the student's Examining Committee to eliminate perceived weaknesses in the student's background preparation or to increase awareness of other disciplines;

(e) submission for publication of an original research article derived from the thesis to a refereed journal. Exemption from this requirement is granted only with permission from the GLIER Graduate Committee;

(f) submission of a Research Progress Report to the Master's Committee every six months and a meeting with the committee to review progress and problems encountered during the preceding six months and to plan future work;

(g) completion of an original research project reported in a thesis;

(h) defense of the thesis in a public lecture and before the Master's Committee.

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[Mechanical Engineering:
Graduate Faculty](#)

- [Mechanical Engineering:
Areas of Specialization](#)
- [Mechanical Engineering:
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[English: Graduate Faculty](#)

- [English: Programs](#)
- [English: Courses](#)

[Environmental Science
\(GLIER\): Graduate Faculty](#)

- [ES: Programs](#)
- [ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)
- [History: Courses](#)

[Faculty of Human Kinetics:
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- [Kinesiology: Courses](#)

[Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
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Visual Arts: Graduate Faculty

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HISTORY: PROGRAMS OF STUDY

PROGRAMS OF STUDY
(Alpha-listing)

History (MA)

Statement of Responsibility

THE MASTER OF ARTS DEGREE

Statistics Canada Disclaimer

The Master of Arts degree in history combines an intensive project of research with an orientation to contemporary modes of historical interpretation. A program attentive to developing the craft of historical research, writing and analysis, the graduate program prepares students equally for continuing with academic studies in history at the doctoral level and for a variety of other careers where the knowledge and skills of the historian are valued.

Important Dates: 2007-08

The graduate program has been designed to make all the courses offered relevant to all students. Courses are geared to the knowledge level and analytical ability of students emerging from a Canadian undergraduate programs in history (or equivalent) with a strong academic record. Geographical specializations of faculty include Canada, the United States, Britain, Europe, and Latin America. Thematic specializations include social, cultural, and intellectual history; history of the state and society; history of women, gender, and sexuality; history of the book; history of medicine; and postcolonial history. Each thematic course allows students to come to terms with a number of modes of interpretation of a single historical problematic, and then apply historiographical analysis to their chosen nation-state situation and chronological period.

Faculty of Graduate Studies
and Research (FGSR)

Programs Offered - Overview

Application Procedures

The program takes as its starting point the assumption that most students enter graduate work in history with an orientation to the history of a particular nation in a specific time period. The program's objective is to enable students to expand upon those initial interests and incorporate in their understanding a sophisticated critique of contemporary modes of historical interpretation. To that end, the five courses are thematic in focus; within the framework of each one, students have the opportunity to explore historiographical debates ranging outside the usual boundaries of time and place. When it comes to the Major Paper, the factors of specialization based on geography and chronology will converge with an appropriate interpretive mode and a suitable body of sources to generate the topic for a sophisticated research paper.

Faculty Regulations

The Degree of Doctor of
Philosophy

Full-time candidates for the Master of Arts degree will take, during their first two terms of enrollment, two required graduate courses (43-503 and 43-504) and three other graduate courses (offered from the range 43-505; 43-506; 43-507; 43-508; 43-509; 43-597; 43-598). Most students registering in a given year will take all the courses offered, so that course work will normally be completed in the first two semesters. Each student will develop a research plan in conjunction with the required seminars 43-503/43-504, and embark on a Major Research Paper under the supervision of two members of the history faculty. A student may, with the consent of the Graduate Advisor or AAU Head, take one course in another University of Windsor graduate program or in History at Wayne State University. Part-time candidates must complete 43-503 before embarking on further courses.

The Master's Degree

Research Institutes

General Courses, FGSR

Biological Sciences: Graduate

Faculty

- Biological Sciences: Programs
- Biological Sciences: Courses

Odette School of Business: Graduate Faculty

- Business: Programs
- Business: Courses

Chemistry and Biochemistry: Graduate Faculty

- Chemistry and Biochemistry: Programs
- Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

- Communications Studies: Programs
- Communciation Studies: Courses

Computer Science: Graduate Faculty

- Computer Science: Programs
- Computer Science: Courses

Earth Sciences: Graduate Faculty

- Earth Sciences: Programs
- Earth Sciences: Courses

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

- [IMSE: Courses](#)

[Mechanical Engineering:
Graduate Faculty](#)

- [Mechanical Engineering:
Areas of Specialization](#)
- [Mechanical Engineering:
Courses](#)

[English: Graduate Faculty](#)

- [English: Programs](#)
- [English: Courses](#)

[Environmental Science
\(GLIER\): Graduate Faculty](#)

- [ES: Programs](#)
- [ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)
- [History: Courses](#)

[Faculty of Human Kinetics:
Graduate Faculty](#)

- [Kinesiology: Programs](#)
- [Kinesiology: Courses](#)

[Mathematics and Statistics:
Graduate Faculty](#)

- [Mathematics and Statistics:
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- [Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

- Sociology: Programs
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KINESIOLOGY: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
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Human Kinetics (MHK)

[Statement of Responsibility](#)

THE MASTER OF HUMAN KINETICS DEGREE

[Statistics Canada Disclaimer](#)

General Nature of the Program

[Important Dates: 2007-08](#)

There are two streams to the program, Sport Management and Applied Human Performance: both streams include a thesis option which normally will lead to doctoral work. Both offer an Internship option which combines coursework with practical work term placement designed to serve as an enrichment experience.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Admission Requirements

1) In addition to the general admission requirements of the Faculty of Graduate Studies and Research outlined in 1.3 and 1.6.1, the following are employed in the determination of a candidate's admission status:

[Programs Offered - Overview](#)

- (a) Thesis students must have a faculty research advisor before being admitted into one of the following areas of specialization:
- i) Applied Human Performance
 - ii) Sport Management

[Application Procedures](#)

[Faculty Regulations](#)

- (b) A person who holds a three-year degree in another discipline is required to complete the requirements for the Master's degree as outlined in the Graduate Calendar. Up to ten Kinesiology undergraduate courses beyond the minimum requirement may be deemed necessary by the graduate committee.

[The Degree of Doctor of
Philosophy](#)

- (c) A person who holds a four-year degree in another discipline will be required to take up to five Kinesiology undergraduate courses prior to taking graduate courses.

[The Master's Degree](#)

Normally, the makeup courses are to be selected from the areas of specialization: Applied Human Performance and Sport Management.

Undergraduate courses, assigned at the discretion of the Graduate committee and the student's advisor to form the make-up requirements, may be found in the Undergraduate Calendar (see 9.2).

[Research Institutes](#)

Program Requirements

- 1) In addition to the general requirements for the Master's degree, the candidate must:

[General Courses, FGSR](#)

- (a) complete a minimum four graduate-level courses and a thesis, or substitute a minimum of three graduate-level courses and an internship;
- (b) pass an oral examination based on a thesis;

[Biological Sciences: Graduate](#)

- 2) Only one Special Problems (95-510) course may be taken regardless of area of

Faculty	specialization.
• Biological Sciences: Programs	3) <i>Master's Committee and Advisors</i> : Prior to a candidate's initial registration, the Department Head will assign a program advisor for each candidate.
• Biological Sciences: Courses	The appointed advisor may or may not act as chairperson of the Master's thesis committee, which will include at least two additional members, one of whom shall be a faculty member from outside Human Kinetics. An additional member from the graduate faculty of another university may be invited to serve on the Master's thesis committee.
Odette School of Business: Graduate Faculty	4) <i>Examinations</i>
• Business: Programs	(a) <i>Thesis Option</i> : The thesis committee will conduct the oral examination of the thesis proposal. When the thesis has been completed, the thesis committee, in consultation with the candidate, will determine whether to proceed with or postpone the final oral examination. For the final oral examination of the thesis, the committee will be supplemented by another member of the Kinesiology graduate faculty who will act as the chairperson. Following the successful defense, the candidate will deposit all copies of the thesis in the Office of the Faculty of Graduate Studies and Research for binding and distribution (two copies for the Leddy Library, a copy to the Faculty of Human Kinetics).
• Business: Courses	
Chemistry and Biochemistry: Graduate Faculty	(b) <i>Internship Option</i> : The internship consists of a minimum of 360 hours of applied work experience in a sport management or applied human performance setting. The internship option is open to students who have completed four graduate courses. Students develop an internship experience in conjunction with a graduate faculty member prior to registering for the internship. Students are required to complete the "Internship Objectives Form" prior to completing 50 hours of their experience. Their work experience is supervised and evaluated (mid-term and final evaluation) by the cooperating field professional. Students are also required to prepare and defend a research report. Final evaluation is on a Pass/Non-Pass basis and the student is required to pass both the experience and the research report components of the internship. Following the successful completion, the candidate deposits two copies of the internship and research report in the Faculty of Human Kinetics.
• Chemistry and Biochemistry: Programs	
• Chemistry and Biochemistry: Courses	
Communication Studies: Graduate Faculty	
• Communications Studies: Programs	
• Communication Studies: Courses	
	APPLIED HUMAN PERFORMANCE
	The program focuses on the application of movement science in sport, the workplace, and activities of daily living. Students pursue course work, thesis research, and internships that examine the basic and applied principles of human biomechanics, ergonomics, exercise physiology, lifespan development, motor learning and control, and sport and exercise physiology. To fulfil degree requirements, each candidate must complete the following:
Computer Science: Graduate Faculty	Thesis Option
• Computer Science: Programs	1) Three course from 95-504 , 95-510 , 95-522 , 95-523 , 95-524 , 95-525 , 95-526 , 95-527 , 95-528 , 95-590 , 95-595 .
• Computer Science: Courses	2) A Thesis (95-797).
	3) One other graduate course chosen in consultation with the thesis advisor.
Earth Sciences: Graduate Faculty	Internship Option
• Earth Sciences: Programs	1) Five of 95-504 , 95-522 , 95-523 , 95-524 , 95-525 , 95-526 , 95-527 , 95-528 , 95-590 , 95-595 .
• Earth Sciences: Courses	2) Two other graduate courses chosen in consultation with the internship advisor.

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education:
Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering:
Programs of Study Overview

Civil and Environmental
Engineering (CEE): Graduate
Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering:
Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials:
Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing
Systems Engineering (IMSE):
Graduate Faculty

- IMSE: Areas of
Specialization

3) Internship ([95-795](#)).

SPORT MANAGEMENT

The program focuses upon the understanding of the components of organizational studies in the context of sport. Students will pursue course work and either thesis research or an internship that focuses on leadership, organizational behaviour, sport marketing, Olympic studies, legal and social issues of management, historical and sociological perspectives of sport. To fulfil degree requirements, each candidate must complete the following:

Thesis Option

- 1) Three courses from [95-500](#), [95-501](#), [95-502](#), [95-503](#), [95-505](#), [95-506](#), [95-510](#), [95-562](#), [95-590](#), [95-595](#).
- 2) A Thesis ([95-797](#)).
- 3) One other graduate course chosen in consultation with the thesis advisor.

Internship Option

- 1) Five courses from [95-500](#), [95-501](#), [95-502](#), [95-503](#), [95-505](#), [95-506](#), [95-562](#), [95-590](#), [95-595](#).
- 2) Two other graduate courses chosen in consultation with the internship advisor.
- 3) Internship ([95-795](#)).

- [IMSE: Courses](#)

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- [Mechanical Engineering:
Areas of Specialization](#)

- [Mechanical Engineering:
Courses](#)

[English: Graduate Faculty](#)

- [English: Programs](#)

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[Environmental Science
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[ES: Programs](#)

[ES: Courses](#)

[History: Graduate Faculty](#)

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[Faculty of Human Kinetics:
Graduate Faculty](#)

- [Kinesiology: Programs](#)

- [Kinesiology: Courses](#)

[Mathematics and Statistics:
Graduate Faculty](#)

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- [Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
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Sociology: Graduate Faculty

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INDUSTRIAL AND MANUFACTURING SYSTEMS ENGINEERING: AREAS OF SPECIALIZATION

Industrial and Manufacturing Systems Engineering offers a graduate program leading to the degree of Doctor of Philosophy (Ph.D.). This multi-disciplinary doctoral program includes the study, management and control of integrated systems of people, machines, and technologies utilized to improve the quality and productivity of the entire system. The Master of Applied Science (M.A.Sc.) and Master of Engineering (M.Eng.) are also offered, encompassing basic as well as applied research.

Faculty

- Biological Sciences: Programs
- Biological Sciences: Courses

Odette School of Business: Graduate Faculty

- Business: Programs
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Chemistry and Biochemistry: Graduate Faculty

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Communication Studies: Graduate Faculty

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Earth Sciences: Graduate Faculty

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[Faculty of Education: Graduate Faculty](#)

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[Civil and Environmental Engineering \(CEE\): Graduate Faculty](#)

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- [CEE: Courses](#)

[Electrical Engineering: Graduate Faculty](#)

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[Engineering Materials: Graduate Faculty](#)

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MATHEMATICS AND STATISTICS: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
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Mathematics and Statistics (MSc)

- [Mathematics](#)
- [Statistics](#)
- [Mathematics and Statistics \(PhD\)](#)

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THE DOCTOR OF PHILOSOPHY DEGREE

Admission Requirements

For admission requirements and period of study, the general regulations of the Faculty of Graduate Studies and Research should be consulted (see 1.5). Qualifying examinations will not normally be required.

[Important Dates: 2007-08](#)

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

CANDIDACY

Students will be recommended for candidacy (see 1.5.1) only after successful completion of the Comprehensive Examinations and course work.

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Program Requirements for the Ph.D. (Statistics)

[Application Procedures](#)

1) *Course Work*: Students admitted with an M.Sc. or equivalent must successfully complete at least four graduate courses numbered with the prefix 65-; further graduate courses may be assigned by the Graduate Studies Committee in consultation with the advisor. Transfer credits will not be allowed. (Up to two courses prefixed 65- may be replaced by [62-510](#) and/or [62-511](#).)

[Faculty Regulations](#)

Students admitted with an Honours B.Sc., or equivalent, which is done only in exceptional cases, must successfully complete at least twelve graduate courses, eight of which must be numbered with the prefix 65-; further graduate courses may be assigned by the Graduate Studies Committee in consultation with the advisor. Transfer credits will not be allowed.

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It is strongly recommended that all Ph.D. students in Statistics take a measure theoretic probability course.

[The Master's Degree](#)

Students registered in the Dissertation are required to register in Seminar 65-795. Students must attend no less than 75 percent of all seminars in the first 3 years. Every doctoral student is required to give a presentation prior to dissertation defense.

[Research Institutes](#)

2) *Doctoral Committee*: within the student's first term of study at the doctoral level, a doctoral committee will be appointed by the Head of the Department upon the advice of the Graduate Studies Committee. The doctoral committee must be approved by the Executive Committee of the Faculty of Graduate Studies and Research. The doctoral committee shall include the student's advisor as chairperson, at least two other members of the Department, one faculty member from outside the Department, and an external examiner, who shall not be involved in the preparation of the dissertation. The selection of the external examiner is subject to the approval of the Dean of Graduate

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Faculty

• Biological Sciences: Programs

Studies and Research. Members of other departments may also be invited to join the committee (see also 1.5.2).

• Biological Sciences: Courses

3) *Dissertation*: The dissertation shall be defended at an oral examination (see also 1.5.2).

Odette School of Business: Graduate Faculty

4) *Comprehensive Examinations*: A student must pass a series of three written comprehensive examinations as follows:

- i. Paper I-Mathematical Statistics and Probability
- ii. Paper II-Statistics OR Probability
- iii. Paper III-Topics (two topics mutually agreed upon by the advisor and student).

• Business: Programs

If a student fails an examination, it may be repeated once, but if the examination is failed a second time, the student must withdraw from the program (see also 1.5.3). In any case, these examinations must be successfully completed within twenty-five months of first registration in the doctoral program. If this deadline is not met, the student must withdraw from the program.

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

THE MASTER OF SCIENCE DEGREE

Program Requirements for the M.Sc. (Mathematics)

The candidate shall successfully complete one of the following courses of study:

- (a) seven graduate courses and a major paper;
- (b) six graduate courses and a thesis. The originality of a Master's thesis may lie in the organization, presentation, and scholarly evaluation, rather than in the result.

Communication Studies: Graduate Faculty

In addition to the above course work, students registered in the Major Paper/Thesis are required to register in Seminar [62-795](#). They must attend 75 percent of the regular department's seminars in the first year of the program.

• Communications Studies: Programs

Graduate courses completed at this institution must include two of the following: Real Analysis ([62-510](#)), Functional Analysis ([62-512](#)), or Partial Differential Equations ([62-561](#)).

• Communication Studies: Courses

Program Requirements for the M.Sc. (Statistics)

The candidate shall successfully complete one of the following courses of study:

- (a) seven graduate courses, of which at least five must be numbered with the prefix 65-, and a major paper;
- (b) six graduate courses, of which at least four must be numbered with the prefix 65-, and a thesis. The originality of a Master's thesis may lie in the organization, presentation, and scholarly evaluation, rather than in the result.

Computer Science: Graduate Faculty

In addition to the above course work, students registered in the Major Paper/Thesis are required to register in Seminar [65-795](#). They must attend 75 percent of the regular department's seminars in the first year of the program.

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

In both M.Sc. (Statistics) programs, up to two courses prefixed 65- may be replaced by [62-510](#) and/or [62-511](#).

• Earth Sciences: Programs

Master's Committee

• Earth Sciences: Courses

If the Thesis option is taken for either the M.Sc. (Mathematics) or the M.Sc. (Statistics), a Masters committee must be appointed within the student's first term of study at the II Master's (Candidate) level. The Master's committee must be approved by the Executive Committee of the Faculty of Graduate Studies and Research. The Master's committee

[Economics: Graduate Faculty](#)

shall include the student's supervisor as chairperson, one other member of the Department, and one faculty member from outside the Department.

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Philosophy: Graduate Faculty

- Philosophy: Programs
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Physics: Graduate Faculty

- Physics: Programs
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Political Science: Graduate
Faculty

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Psychology: Graduate Faculty

- Psychology: Programs
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Social Work: Graduate
Faculty

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MECHANICAL ENGINEERING: AREAS OF SPECIALIZATION

Ph.D., M.A.Sc. and M.Eng. graduate programs in Mechanical Engineering are administered by Mechanical, Automotive and Materials Engineering upon the advice of its Graduate Studies Committee for Mechanical Engineering. Areas of specialization for the Ph.D. are in Machine Dynamics and Design, or in Thermo-Fluids. M.A.Sc. and M.Eng. programs are offered in the areas of Machine Dynamics and Design, Thermo-Fluids, and Automotive.

In addition, the Department offers a separate M.Eng. in Mechanical Engineering (Automotive Field) specifically designed for a cohort of international students, particularly foreign-trained engineers. For more information on this program contact the Centre for Executive Education at www.uwindsor.ca/execed.

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Computer Science: Graduate
Faculty

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Programs

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Earth Sciences: Graduate
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THE MASTER OF SCIENCE DEGREE IN NURSING

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Mission Statement

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The mission of the University of Windsor Master of Science degree program in Nursing is to prepare graduates for advanced nursing practice. Graduates will address societal health needs relating to health promotion and illness prevention, or human responses and adaptations to alterations in health. Through the integration of theory, research, and practice students will advance their scientific base for practice. In addition the program supports development of leadership and advocacy skills for contributions to health care, education and research. Through faculty guidance and self-directed learning activities, students from diverse backgrounds will develop advanced professional knowledge through critical thinking, decision making, and scholarly inquiry in a multicultural society. This program is especially designed to meet the needs of employed baccalaureate prepared nurses.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Admission Requirements

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1) All general regulations of the Faculty of Graduate Studies and Research admission requirements are applicable.

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2) Applicants must have a Bachelor of Science in Nursing or equivalent which includes physical assessment, and courses in research and statistics. Consideration may be given to nurse applicants holding degrees in other cognate disciplines.

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3) Applicants must have maintained an overall B average in their undergraduate nursing program.

[The Master's Degree](#)

4) Applicants must be eligible for a current certificate of competence as registered nurses in Ontario.

[Research Institutes](#)

5) Three Faculty of Nursing confidential reports must be completed by academic/professional referees, with at least one from an academic who has taught the applicant and one from a recent employment supervisor.

[General Courses, FGSR](#)

7) Applicants whose native language is not English must submit certification of English proficiency (official TOEFL score or equivalent MELAB).

[Biological Sciences: Graduate](#)

8) Applications for admission must be completed by January 15.

Faculty	9) An interview may be required.
• Biological Sciences: Programs	Program Requirements
• Biological Sciences: Courses	1) Candidates for the Master of Science degree in Nursing will pursue studies in one of two areas of concentration: (a) Human responses and adaptations to alterations in health of individuals, families and groups to acute and chronic illness. (b) Health promotion and illness prevention in selected populations.
Odette School of Business: Graduate Faculty	2) The requirements may be satisfied by pursuing a program of studies consisting of six compulsory courses and a thesis, or six compulsory courses, two elective courses and a major project/paper. Those who wish to include a thesis in their program must request approval from the Graduate Committee of the Faculty of Nursing.
• Business: Programs	Additional information concerning the procedure for theses and major papers may be obtained from the coordinator of graduate studies (see 1.6.3).
• Business: Courses	3) Compulsory courses:
Chemistry and Biochemistry: Graduate Faculty	63-581. Theoretical Foundations of Nursing 63-582. Advanced Statistics 63-583. Research Methods in Nursing 63-599. Clinical Judgment in Nursing
• Chemistry and Biochemistry: Programs	and either 63-584 and 63-586, or 63-588 and 63-590, depending on the selected area of focus.
• Chemistry and Biochemistry: Courses	4) Clinical Judgement in Nursing Practice will involve one term of full-time study in a setting selected in consultation with the student. Students will select individuals, families, groups, populations and/or communities in various health care facilities, and/or community settings, to develop their knowledge and skill for advanced nursing practice.
Communication Studies: Graduate Faculty	5) Major project/paper students will select two graduate electives in nursing or related disciplines. Courses will be selected according to the student's research interests.
• Communications Studies: Programs	6) All candidates' programs are subject to approval by the graduate coordinator.
• Communication Studies: Courses	7) The minimum grade required in all graduate courses is B-. Any student who does not successfully complete a course may repeat it once at the discretion of the Dean of the Faculty of Nursing and the Dean of Graduate Studies and Research. The student may not repeat more than one course.
Computer Science: Graduate Faculty	8) The maximum time limit is five years.
• Computer Science: Programs	9) Students of the Faculty of Nursing are required to demonstrate behaviours consistent with the "Professional Standards for Registered Nurses and Registered Practical Nurses, Standards for the Therapeutic Nurse-Client Relationship and the Ethical Framework for Nurses in Ontario" of the College of Nurses of Ontario, and "Explanation of Professional Misconduct" of the College of Nurses of Ontario," and the academic policies of the University of Windsor.
• Computer Science: Courses	Failure of any Nursing student to conform to the principles of these documents may result in dismissal from any of the Faculty of Nursing's programs.
Earth Sciences: Graduate Faculty	The Master's thesis committee is chosen in the manner described in 1.6.2 of this Graduate Calendar. The final examination will be conducted by the Master's committee.
• Earth Sciences: Programs	Students choosing a major project/paper must have a detailed proposal approved by at least two nursing faculty members, one of whom will serve as the primary advisor. The
• Earth Sciences: Courses	

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- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

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Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

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- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

approved proposal application form must be submitted to the Dean of the Faculty of Nursing in order to register for the major project/paper. The major project/paper committee will conduct the final oral examination.

Each student must obtain approval of his or her program in writing, from the graduate coordinator, within three weeks of registration. Subsequent changes require written approval from the graduate coordinator.

THE MASTER OF NURSING DEGREE

Admission Requirements

The program admission requirements for the course-based master's program (MN) are the same as the requirements for the Master of Science Program (M.Sc.). All general regulations of Graduate Studies and Research are applicable.

Program Requirements

It should be noted that the two areas of concentration: Human responses and adaptations to alterations in health of individuals, families and groups to acute and chronic illness and Health promotion and illness prevention in selected populations are the same as the M.Sc. program.

Total courses: Ten (10) courses

Major requirements: Students in the course-based master's (MN) must take the same six (6) compulsory courses required of students in the Master of Science Program (MSc):

63-581. Theoretical Foundations of Nursing
63-582. Advanced Statistics
63-583. Research Methods in Nursing
63-599. Clinical Judgment in Nursing

and either 63-584 (Human Responses and Adaptation to Alterations in Health I) and 63-586 (Human Responses and Adaptation to Alterations in Health II).

or 63-588 (Health Promotion and Illness Prevention through the Life Cycle I) and 63-590 (Health Promotion and Illness Prevention through the Life Cycle II).

Other requirements: Students are required to take four elective courses, at least two of which must be nursing. Nursing electives may be selected from any of the following six existing elective nursing courses:

63-570. Counselling Process in Nursing
63-572. Women and Health
63-574. Organizational and Management Theories Relevant to Health Care Organizations
63-576. Management of Resources in Nursing
63-578. Seminar in Current Nursing Issues
63-580. Selected Readings in Nursing

Two graduate course electives from other disciplines.

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[Mathematics and Statistics:
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Course Sequencing

YEAR I

Fall Semester

63-581. Theoretical Foundations of Nursing
63-583. Research Methods In Nursing

Winter Semester

63-582. Advanced Statistics
63-584. Human Responses & Adaptations to Alterations in Health I
or
63-588. Health Promotion & Illness Prevention Through the Life Cycle I

Summer Semester

Nursing/Open Elective(s)

YEAR II

Fall Semester

Nursing/Open Elective
63-586. Health Responses and Adaptations to Alterations in Health II
or
Health Promotion and Illness Prevention Through the Life Cycle II

Winter Semester

63-599. Clinical Judgment in Nursing Practice

Summer Semester

Nursing/Open Elective(s)

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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

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Political Science: Graduate Faculty

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Psychology: Graduate Faculty

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Social Work: Graduate Faculty

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PHILOSOPHY: PROGRAMS OF STUDY

Philosophy (MA)

THE MASTER OF ARTS DEGREE

General Nature of the Program

The aim of the program is to give students the opportunity to deepen their philosophical understanding both by broadening their undergraduate background and/or by allowing them to concentrate their studies in one of the two specific areas of focus in our program. The first area is informal logic, the theory of argument, and the theory of critical thinking; the second is twentieth-century continental philosophy. It is expected that theses and major papers will be written in one of these two areas. The possibility of concentrating in some other area exists, but is conditional upon staffing resources, which are subject to change. The Philosophy M.A. program is structured in such a way as to encourage maximum participation by students in seminars and to allow extensive contact with professors outside of formal class time.

Admission Requirements

See 1.6.1 for general requirements for admission into an M.A. program at the University of Windsor. The Philosophy program normally requires the equivalent of twenty one-term courses in philosophy for admission to the one-year Master's program and the equivalent of ten one-term courses in philosophy for admission to the two-year Master's program.

Program Requirements

For general requirements for the Master's degree, see 1.6.2. The following are particular requirements for the M.A. in Philosophy:

- 1) The student may proceed to the degree in any one of the following ways:
 - (a) successfully complete at least four and not more than six graduate courses (the fifth and sixth courses may be in a cognate field), and satisfactorily complete a thesis on which there shall be an oral examination;
 - (b) successfully complete six courses, two of which may be in a cognate field, and satisfactorily complete a major research paper on which there shall be an oral examination;
 - (c) successfully complete eight courses, two of which may be in a cognate field.

Note:

- i. Students wishing to pursue Ph.D. studies are advised to take option (a) or (b), but not (c).
- ii. Students choosing option (c) should recognize that students in their candidate year

Faculty	normally take two graduate courses each term and that it will take more than one year to complete their program.
• Biological Sciences: Programs	2) All students proceeding to the degree must:
• Biological Sciences: Courses	(a) include the Departmental Seminar (Philosophy 34-590) among their courses for the degree; (b) successfully complete the Master's Examination in Philosophy.
Odette School of Business: Graduate Faculty	3) M.A. Qualifying Year: Students at the I Master's level are required to take 34-491 (Honours Seminar) (see 4.16.3 of the Undergraduate Calendar).
• Business: Programs	4) Program Approval: Each student must have his or her projected program authorized by the Graduate Coordinator.
• Business: Courses	

Chemistry and Biochemistry: Graduate Faculty

- Chemistry and Biochemistry: Programs
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Communication Studies: Graduate Faculty

- Communications Studies: Programs
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Computer Science: Graduate Faculty

- Computer Science: Programs
- Computer Science: Courses

Earth Sciences: Graduate Faculty

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Faculty

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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

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Political Science: Graduate
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Psychology: Graduate Faculty

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PHYSICS: PROGRAMS OF STUDY

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Physics (MSc)
Physics (PhD)

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Admission Requirements

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The basic qualification for admission consists of a Bachelor's degree with adequate specialization in Physics, obtained with first or second class honours or an A or B average. Students with deficiencies may be required to make up these deficiencies by registering in undergraduate courses or by following a program of supervised reading.

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Applicants whose academic credentials are difficult to assess may be required to write the Graduate Record Examination (GRE) administered by the Educational Testing Service. Inquiries should be made at the time of application. Details of the examination may be obtained from the Educational Testing Service, Princeton, New Jersey, U.S.A., 08540.

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THE DOCTOR OF PHILOSOPHY DEGREE

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1) *Period of Study:* A minimum of three years in full-time graduate studies is required. Credit for one of the three years may be given for a Master's degree obtained in Physics at the University of Windsor or for graduate work carried out at another institution. Not more than seven years should elapse between registration and completion of the requirements for the degree; an extension of this period may be granted only on recommendation from the program coordinator and approval by the Faculty of Graduate Studies and Research.

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2) *Course Work:* Candidates with Master's degrees in Physics (or equivalent) will complete a minimum of four graduate courses, including [64-610](#), and at least two other courses at the 600 level. Any additional graduate courses to fulfill the course requirement must be approved by the Department. Candidates must also take [64-550](#) and [64-551](#) if previous equivalent credit has not been obtained.

[The Master's Degree](#)

Candidates who do not have a Master's degree in Physics (or equivalent) will complete a minimum of eight graduate courses which must include [64-510](#), [64-520](#), [64-550](#), [64-551](#), [64-610](#), and at least two other courses at the 600 level. Any additional graduate courses to fulfill the course requirement must be approved by the Department.

[Research Institutes](#)

3) *Doctoral Committee:* Within one month after registration each student will be assigned to an advisory committee consisting of a research advisor and two other faculty members in Physics.

[General Courses, FGSR](#)

This committee will, from time to time, review the student's progress (see 1.5.2).

[Biological Sciences: Graduate](#)

For the defense of dissertation (final oral examination) the advisory committee will be supplemented by one professor from outside Physics and an external examiner who, as

Faculty

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• Biological Sciences: Courses

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

an expert in the field of physics in which the candidate's research is carried out, will appraise the dissertation and ordinarily will also be present at the final oral examination.

4) *Dissertation*: In order to qualify for the degree each candidate must present a dissertation embodying the results of an original investigation in a branch of physics. Graduate courses form an important but subsidiary part of the program.

The candidate, when requested, shall submit to the chief advisor from time to time portions of the dissertation and a complete draft on a date specified by the advisor, and place four typewritten copies of the completed dissertation in the hands of the advisor at least six weeks before Convocation. Rules governing binding, quality of paper, etc., of the dissertation can be found in Procedures to Follow in Preparing a Thesis or Dissertation (see 1.5.3).

5) *Examinations*: In addition to the examinations in the courses, all candidates must pass qualifying examinations covering the general field of physics at the level of the honours program given at this university. The examinations must be passed after the completion of the M.Sc. degree, not later than one year after registration as a graduate student proceeding to the Ph.D. Other examinations (written or oral) may be set at the discretion of the program coordinator.

Each candidate will, on recommendation of the advisory committee, submit to a final oral examination in defense of the dissertation.

THE MASTER OF SCIENCE DEGREE

Program Requirements

1) The requirements for the degree of Master of Science may be satisfied by pursuing a program of studies consisting of:
(a) at least four graduate courses and a thesis; or
(b) at least six graduate courses and a major paper; or
(c) not less than eight graduate courses.

2) [64-510](#), [64-520](#), [64-550](#) and [64-551](#) will be required of all candidates.

Candidates proceeding to the M.Sc. by either of the above options may include in their program, with the approval of the program coordinator, two undergraduate courses.

3) Candidates who are proceeding to the M.Sc. by course work alone may be permitted to include in their programs four courses in Mathematics.

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering: Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials: Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
Specialization

- [IMSE: Courses](#)

[Mechanical Engineering:
Graduate Faculty](#)

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Courses](#)

[English: Graduate Faculty](#)

- [English: Programs](#)
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[Environmental Science
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[ES: Programs](#)

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[History: Graduate Faculty](#)

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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

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- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

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POLITICAL SCIENCE: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
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**Political Science (MA)
Master of Arts in Political Science and Master of Public Policy Articulation**

[Statement of Responsibility](#)

THE MASTER OF ARTS DEGREE

[Statistics Canada Disclaimer](#)

Admission Requirements

[Important Dates: 2007-08](#)

The normal requirement for admission to the one-year M.A. program is an honours degree or combined honours degree in Political Science, or an honours degree in a related discipline, such as International Relations, with a B+ average. Honours graduates in fields other than these will be considered on the basis of their academic background and standing. Those with less than a four-year degree, or with minor deficiencies, will be required to take additional courses, or to enter a two-year program (see 1.3.3).

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

Program Requirements

[Programs Offered - Overview](#)

After completion of the student's first full term of study (normally 3 graduate courses), the Graduate Committee will evaluate the student's progress and research proposal. On the recommendation of that Committee the student will then complete their degree on one of two paths:

[Application Procedures](#)

(a) *The Major Paper*: This path requires students to complete successfully three further graduate courses, and a major paper approved by the student's examining committee. The Paper will be written under the direction of a committee normally composed of two Political Science faculty members. It is expected that students will register full-time and complete the program in three semesters.

[Faculty Regulations](#)

(b) *The Thesis*: This path requires students to successfully complete one further graduate course, and a thesis approved by the student's examining committee. The thesis will be written under the direction of a committee composed of two Political Science faculty members plus a member outside Political Science, but from within the University. An oral defence of the thesis is required (see 1.6.2). There is no formal due date for a thesis, however, it is expected that students will register full-time and complete the program in three semesters.

[The Degree of Doctor of
Philosophy](#)

[The Master's Degree](#)

All students in the I Master's (Qualifying) year must normally carry a full load of ten undergraduate courses or their equivalent.

[Research Institutes](#)

UNIVERSITY OF MICHIGAN (DEARBORN) MASTER OF PUBLIC POLICY (MPP) (ARTICULATION AGREEMENT)

[General Courses, FGSR](#)

The articulation agreement will enable students in the Political Science Masters program to receive transfer credit for their graduate political science courses towards the University of Michigan (Dearborn campus) Master of Public Policy program.

[Biological Sciences: Graduate](#)

Faculty

• Biological Sciences: Programs

• Biological Sciences: Courses

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

Students will be admitted separately into the two programs, through a joint admissions committee, but will complete the degrees concurrently.

For additional information, contact the Faculty of Political Science.

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- [Economics: Programs](#)
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[Engineering Materials: Graduate Faculty](#)

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[Industrial and Manufacturing Systems Engineering \(IMSE\): Graduate Faculty](#)

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Specialization](#)

- [IMSE: Courses](#)

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- [Mechanical Engineering:
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\(GLIER\): Graduate Faculty](#)

- [ES: Programs](#)
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[History: Graduate Faculty](#)

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Graduate Faculty](#)

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- [Kinesiology: Courses](#)

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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

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- Social Work: Courses

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PSYCHOLOGY: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
\(Alpha-listing\)](#)

Psychology (MA)
Psychology (PhD)
Adult Clinical Psychology (Postdoctoral Certificate)

[Statement of Responsibility](#)

[Statistics Canada Disclaimer](#)

[Important Dates: 2007-08](#)

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

The graduate programs of study are Adult Clinical Psychology, Child Clinical Psychology, Clinical Neuropsychology, and Applied Social Psychology. All graduate students in Psychology are required to comply with the most recent ethical principles, values, and standards of the Canadian Psychological Association and the American Psychological Association, and with the current standards for research with human subjects adopted by the University of Windsor.

Failure of a student to adhere to the principles, values, and standards defined above will constitute sufficient cause to warrant dismissal from the graduate program in Psychology.

THE DOCTOR OF PHILOSOPHY DEGREE

[Programs Offered - Overview](#)

In addition to the general requirements listed in 1.5, the following requirements must be met by all students proceeding to the Ph.D. degree.

[Application Procedures](#)

Admission Requirements

Applicants with a four year undergraduate psychology degree or its equivalent will be considered for admission.

[Faculty Regulations](#)

[The Degree of Doctor of
Philosophy](#)

Applicants will be assessed with respect to their academic qualifications including grades, Graduate Record Examination (GRE) scores, letters of recommendation, and career-related achievements. GRE scores (Verbal, Quantitative, Analytical, and Advanced Test in Psychology) are required of all students seeking admission to the Department of Psychology. Possession of the minimum academic requirements does not ensure acceptance. Applications for admission must be completed by January 15.

Program Requirements

[The Master's Degree](#)

1) *Master's degree*: The first phase of the doctoral program involves the completion of the Master's degree in the first two years of the program, the requirements for which include a thesis. Further advancement in the doctoral program depends on the quality of performance in fulfilling the requirements for the Master's degree.

[Research Institutes](#)

[General Courses, FGSR](#)

[Biological Sciences: Graduate](#)

2) *Course Work*: Students must complete successfully a minimum of twelve graduate courses after the honours B.A. or its equivalent. Requirements vary, however, according to areas of specialization. Up to six courses may be accepted for credit from another university. The course work includes a core curriculum involving a general statistical methodology course, a methodology course in the student's area of specialization, and a course in ethical and professional issues in psychology. All students are required to take at least one course that places considerable emphasis on

Faculty

• Biological Sciences: Programs

• Biological Sciences: Courses

Odette School of Business: Graduate Faculty

• Business: Programs

• Business: Courses

Chemistry and Biochemistry: Graduate Faculty

• Chemistry and Biochemistry: Programs

• Chemistry and Biochemistry: Courses

Communication Studies: Graduate Faculty

• Communications Studies: Programs

• Communication Studies: Courses

Computer Science: Graduate Faculty

• Computer Science: Programs

• Computer Science: Courses

Earth Sciences: Graduate Faculty

• Earth Sciences: Programs

• Earth Sciences: Courses

cultural, cross-cultural, or multicultural issues. All students in the Clinical Program, and students in the Applied Social Program who are planning to become registered psychologists with the College of Psychologists of Ontario, must demonstrate competence in the four core areas of biological bases of behaviour, cognitive bases of behaviour, (or in the case of students in the Applied Social program, cultural bases of behaviour) social bases of behaviour, and the historical and philosophical foundations of psychology. The minimum passing grade in graduate courses is "B-". A student who fails one course may repeat it once at the discretion of the Head of the Department and the Dean of Graduate Studies and Research. The student may not repeat more than one course. If a student has failed two courses, a recommendation will normally be made to the Dean of Graduate Studies and Research that the student be required to withdraw from the program. Together with the above requirements, students must complete an internship. The clinical internship is approximately 2000 hours and the applied social internship is approximately 1000 hours.

3) *Academic Advisor*: Each student is assigned an academic advisor at the beginning of his or her first year of graduate studies.

4) *Doctoral Committee*: Research undertaken as part of a doctoral program is directed by a doctoral committee. The membership of the doctoral committee must be appointed by the Head of the Department and approved by the Executive Committee of the Faculty Council of Graduate Studies and Research. When the student is deemed ready to undertake such research, he or she proposes the name of a research advisor and, in consultation with the proposed advisor, the names of other members of the committee consisting of at least two other members of the Psychology Department and one extra-departmental member of faculty. For the defense of the dissertation, an external examiner will be selected by the doctoral committee, subject to the approval of the Department Head and the Dean of Graduate Studies and Research. The external examiner is from outside of the University of Windsor and is nationally or internationally recognized as having expertise in the area of psychology in which the candidate's research is carried out. The external examiner shall not participate in the direction of the research project, but will appraise the dissertation and ordinarily will be present at the final oral examination (see below, 6).

5) *Dissertation*: The principal requirement for the Ph.D. degree in Psychology is the presentation of a dissertation which embodies the results of an original investigation. The results so presented should constitute a significant and original contribution to knowledge.

6) *Examinations*: In addition to examinations in courses, the student must meet the following requirements:

(a) *Comprehensive Examination*: After completion of all course requirements (with the exception of internship courses), the student must pass a comprehensive examination in his or her area of specialization. Successful completion of the examination admits the student to candidacy for the Ph.D. degree. If a student fails the comprehensive examination, he or she may retake the examination once only at the discretion of the Head of the Department and the Dean of Graduate Studies and Research.

(b) *Final Examination*: Each candidate will, on the recommendation of his or her doctoral committee, submit to a final oral examination in defense of the dissertation.

POSTDOCTORAL CERTIFICATION IN ADULT CLINICAL PSYCHOLOGY

Psychology offers a postdoctoral certification in Adult Clinical Psychology. (Note that postdoctoral certification programs in Child Clinical Psychology or in Clinical Neuropsychology are not offered.) The Postdoctoral Certification Program in Adult Clinical Psychology is designed for psychologists who: a) hold a Doctor of Philosophy degree in Psychology in areas other than clinical psychology; b) have had a minimum

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- Economics: Programs
- Economics: Courses

Faculty of Education:
Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering:
Programs of Study Overview

Civil and Environmental
Engineering (CEE): Graduate
Faculty

- CEE: Areas of Specialization
- CEE: Courses

Electrical Engineering:
Graduate Faculty

- Electrical Engineering:
Areas Of Specialization
- Electrical Engineering:
Courses

Engineering Materials:
Graduate Faculty

- Engineering Materials:
Areas of Specialization
- Engineering Materials:
Courses

Industrial and Manufacturing
Systems Engineering (IMSE):
Graduate Faculty

- IMSE: Areas of
Specialization

of three years of postdoctoral experience; and c) wish to retrain as clinical practitioners.

Admission Procedures

A committee of three faculty members (including the Adult Clinical Coordinator and the Postdoctoral Certification Program Coordinator) will constitute the admissions committee. Inquiries and requests for application forms should be addressed as follows: Postdoctoral Certification Program Coordinator, Department of Psychology, University of Windsor, Windsor, Ontario N9B 3P4.

Program Requirements

The following courses are required and will be used by the advisory committee as the basis for designing the trainee's program:

46-580. Psychopathology
46-581. Ethical and Professional Issues in Psychology
46-582. Clinical Assessment I
46-583. Clinical Assessment II
46-589. Advanced Adult Assessment
46-674. Introduction to Psychotherapy

and two two-term course sequences in psychotherapy.

In addition to required courses, the Post-doctoral Certification Program requires completion of a 2000-hour clinical internship. Trainees should not expect to complete the program in less than two to three years.

The advisory committee will be composed of three faculty members, including the Adult Clinical Coordinator. The committee will evaluate the specific needs of the trainee and modify the program as necessary to meet individual training needs. The advisory committee is also responsible for guiding the trainee through the program, evaluating the trainee's progress and, ultimately, verifying that the trainee has successfully completed the certification program.

- [IMSE: Courses](#)

[Mechanical Engineering:
Graduate Faculty](#)

- [Mechanical Engineering:
Areas of Specialization](#)
- [Mechanical Engineering:
Courses](#)

[English: Graduate Faculty](#)

- [English: Programs](#)
- [English: Courses](#)

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[ES: Programs](#)

[ES: Courses](#)

[History: Graduate Faculty](#)

- [History: Programs](#)
- [History: Courses](#)

[Faculty of Human Kinetics:
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- [Kinesiology: Programs](#)
- [Kinesiology: Courses](#)

[Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

- Nursing: Programs
- Nursing: Courses

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
Faculty

- Political Science: Programs
- Political Science: Courses

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Social Work: Graduate
Faculty

- Social Work: Programs
- Social Work: Courses

Sociology: Graduate Faculty

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SOCIAL WORK: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
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[Social Work \(MSW\)](#)

[Statement of Responsibility](#)

THE MASTER OF SOCIAL WORK DEGREE

[Statistics Canada Disclaimer](#)

The Master of Social Work program consists of two degree track options. A two-year MSW program is offered for students with a four-year honours degree in a related social science discipline or helping profession. Candidates for the two-year program will be considered on the basis of their academic background and standing. Applicants for the two-year program are strongly encouraged to have completed course work in the social and behavioural sciences. Candidates entering the two-year program are expected to complete the program in two years of full-time study over six consecutive semesters.

[Important Dates: 2007-08](#)

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

A one-year MSW program is offered for students with an honours B.S.W. degree from a Canadian Association of Schools of Social Work accredited or recognized equivalency program. Candidates entering the one-year program will be expected to complete the program in one-year of full-time study over three consecutive semesters or two years of part-time study over six consecutive semesters.

[Programs Offered - Overview](#)

Admission Requirements

[Application Procedures](#)

Two-year full-time Master of Social Work Program: Applicants may be admitted into the first year of the two-year full-time M.S.W. program provided they have satisfactorily completed a four-year honours undergraduate degree in a related social science discipline or helping profession from the University of Windsor or an approved university, and have maintained a cumulative average of B in their undergraduate work.

[Faculty Regulations](#)

One-year full-time Master of Social Work Program: Applicants may be admitted into the one-year full-time M.S.W. program provided they have satisfactorily completed a B.S.W. from an accredited program, and have maintained a cumulative average of B.

[The Degree of Doctor of
Philosophy](#)

Applicants to the two-year program will be expected to demonstrate awareness of contemporary social issues, effective communication, and motivation toward professional social work. Applicants to the one-year program must indicate their interest in pursuing an Advanced Practice Internship or Thesis option.

[The Master's Degree](#)

Program Requirements

[Research Institutes](#)

The primary objective of the program is to promote the development of skills and knowledge of advanced generalist practice producing graduates who are able to assume leadership roles in the provision of service with vulnerable populations.

[General Courses, FGSR](#)

Two-Year M.S.W. Full-time Program

[Biological Sciences: Graduate](#)

This program takes two years to complete and includes a required field component in

Faculty	the first year of study and the completion of an Advanced Practice Internship (API) in the second year of study. The field component and API may involve travel and/or weekend hours, and students are responsible for transportation to and from their field placement or internship location. All students will be assigned a field placement in a human service organization or community setting in Year One.
• Biological Sciences: Programs	
• Biological Sciences: Courses	The Advanced Practice Internship (API) requires that students, in conjunction with the Field Office and an appropriate agency, develop a project related to a problem, interest, or issue of relevance to an agency, community or other practice setting and apply the Advanced Generalist practice perspective to this project. The project requires that the student assess a component of the intervention for practice effectiveness.
Odette School of Business: Graduate Faculty	
• Business: Programs	Students are required to complete a total of nine (9) courses in the first year of study: 47-503, 47-504, 47-531, 47-532, 47-533, 47-534, 47-547, 47-550, 47-570, plus 47-571 (Master of Social Work Foundation Year Practicum (6 credits)). Students are required to complete a total of six (6) courses in the second year of study: 47-620, 47-621, 47-622, 47-630, 47-640 and 47-680, plus 47-681 (the Advanced Practice Internship).
• Business: Courses	
Chemistry and Biochemistry: Graduate Faculty	<u>One-Year M.S.W. Full-time Program</u>
• Chemistry and Biochemistry: Programs	All students in the one-year program must select either: (1) an Internship seminar and Internship option, or (2) a Thesis seminar and Thesis option. Students who wish to be considered for the Thesis option must have five years post-BSW practice experience and must make an application to the Chair of the Graduate Studies Committee outlining employment experience and reasons for choosing the thesis option. It should be noted that the guidelines for the Thesis adhere strictly to the <i>Procedures to Follow in Preparing a Major Paper, thesis or Dissertation</i> as outlined in the booklet (available from the Office of Graduate Studies and Research).
• Chemistry and Biochemistry: Courses	
Communication Studies: Graduate Faculty	The Advanced Practice Internship (API) requires that students, in conjunction with the Field Office and an appropriate agency, develop a project related to a problem, interest or issue of relevance to an agency, community or other practice setting and apply the Advanced Generalist practice perspective to this project. The project requires that the student assess a component of the intervention for practice effectiveness.
• Communications Studies: Programs	
• Communication Studies: Courses	Students are required to complete a total of six (6) courses: 47-620, 47-621, 47-622, 47-630, 47-640, 47-680 or 47-696, plus 47-681(Advanced Practice Internship) or 47-797 (Thesis).
Computer Science: Graduate Faculty	Part-time Studies – Part-time students are expected to complete their program of study in two consecutive years. Continuous registration is required throughout the two years. All students must commit to either the Thesis or Advanced Practice Internship option by the end of the second semester in Year I.
• Computer Science: Programs	
• Computer Science: Courses	
Earth Sciences: Graduate Faculty	
• Earth Sciences: Programs	
• Earth Sciences: Courses	

Economics: Graduate Faculty

- Economics: Programs
- Economics: Courses

Faculty of Education: Graduate Faculty

- Education: Programs
- Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

- CEE: Areas of Specialization
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Electrical Engineering: Graduate Faculty

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Areas Of Specialization
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Engineering Materials: Graduate Faculty

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Areas of Specialization
- Engineering Materials:
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Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

- IMSE: Areas of
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- [IMSE: Courses](#)

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[Mathematics and Statistics:
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Faculty of Nursing: Graduate
Faculty

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Philosophy: Graduate Faculty

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Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

Political Science: Graduate
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Psychology: Graduate Faculty

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SOCIOLOGY: PROGRAMS OF STUDY

[PROGRAMS OF STUDY
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[Sociology \(Social Justice\) \(MA\)](#)
[Sociology \(Social Justice\) \(PhD\)](#)

[Statement of Responsibility](#)

THE DOCTOR OF PHILOSOPHY DEGREE

In addition to the general requirements listed in 1.5, the following requirements must be met by all students proceeding to the Ph.D. degree in Sociology.

[Statistics Canada Disclaimer](#)

Admission Requirements

For admission to the PhD program in Sociology applicants must hold a Master's degree in Sociology (or equivalent) from a recognized university. Possession of the minimum academic requirements does not ensure acceptance.

Applicants who wish to be considered for funding must apply by January 31. The closing date for all applications is February 28.

[Important Dates: 2007-08](#)

Applicants must include the following:

(a) transcripts from all post-secondary institutions attended. (Transcripts must be sent directly from the institution);

(b) a statement (up to 500 words) addressing the two following questions: (i) How have you been involved in social justice issues through research, work, or community activity; And (ii) How do you envision your research contributing to social justice;

(c) a statement of a proposed area for dissertation research;

(d) a sample of written work (e.g., a term paper, thesis proposal, published work);

(e) three letters of reference in sealed envelopes with the referee's signature across the seal. At least two should be academic references. One letter should be from the MA supervisor; one can be from a non-academic referee who has been in a supervisory or mentor role. These may be sent by the applicant or under separate cover by the referees.

[Faculty of Graduate Studies
and Research \(FGSR\)](#)

[Programs Offered - Overview](#)

[Application Procedures](#)

[Faculty Regulations](#)

[The Degree of Doctor of
Philosophy](#)

[The Master's Degree](#)

[Research Institutes](#)

In addition to assessing the submissions made by the applicant to determine admissibility, the Graduate Committee takes into account (i) the availability of faculty to advise, supervise, and provide funding and research training in conjunction with their own research projects, and (ii) the diversity of subject areas represented in the applicant pool.

Program Overview

Doctoral Committee

[General Courses, FGSR](#)

Upon admission to the Ph.D. program, the Graduate Committee will assign an interim

[Biological Sciences: Graduate](#)

Faculty	faculty advisor whose research and teaching coincide with the applicant's area of interest. Students may submit a request to the Graduate Committee for a particular advisor.
• Biological Sciences: Programs	
• Biological Sciences: Courses	Research undertaken as part of the doctoral program is directed by a doctoral committee consisting of an advisor from the graduate faculty of the Department of Sociology and Anthropology, two other faculty members from inside the department, and one faculty member from outside the department. The student should select the doctoral committee by the end of the first academic year. The membership of the doctoral committee must be approved by the Faculty of Graduate Studies and Research.
Odette School of Business: Graduate Faculty	
• Business: Programs	<i>Course work</i>
• Business: Courses	Ph.D. students are required to complete six graduate courses, including 48-600 and either 48-605 or 48-606 . Proficiency in both quantitative and qualitative methods is required through completion of course work at the M.A. or Ph.D. level. Those without evidence of prior preparation may be required to take additional courses. Acceptable course grades are outlined in Section 1.5 of the Graduate Calendar.
Chemistry and Biochemistry: Graduate Faculty	
• Chemistry and Biochemistry: Programs	One course from the following list of social justice courses may be included to complete the course work requirement*:
• Chemistry and Biochemistry: Courses	<i>Humanities Research Group:</i> 09-599 <i>Communication Studies:</i> 40-501 , 40-512 , 40-515 <i>History:</i> 43-505 , 43-506 , 43-507 , 43-508 , 43-509 , 43-510 <i>Psychology:</i> 46-657 , 46-660 <i>Social Work:</i> 47-520 , 47-521 , 47-522 and 47-540 <i>Nursing:</i> 63-588 <i>Business:</i> 71-647
Communication Studies: Graduate Faculty	
• Communications Studies: Programs	*Permission may be required from the department offering the course. Advance permission from the departmental Graduate Committee is required in order to take any additional courses outside of the Sociology program.
• Communication Studies: Courses	Comprehensive Examinations and Dissertation Proposal
Computer Science: Graduate Faculty	After completion of all course requirements, students must demonstrate mastery of two established and distinct fields of sociological inquiry through satisfactory completion of two comprehensive examinations. Comprehensive examinations serve as preparatory work for the dissertation and enable students to develop recognized areas of expertise for teaching and career purposes.
• Computer Science: Programs	<i>Comprehensive Exams:</i> (a) Two comprehensive exams are required in the following areas: Social Theory, Methodology, Crime and Regulation, Culture and Power, Social Inequality, or Social Change, at least one of which must be in either Social Theory or Methodology.
• Computer Science: Courses	(b) Students may nominate a Comprehensive Examination Committee of three faculty members for each area in which they will be examined from a list of graduate faculty in that area of competence. The Graduate Committee must approve the composition of each committee.
Earth Sciences: Graduate Faculty	(c) Responsibility for setting each exam rests with the Comprehensive Examination Committee. It is the responsibility of the committee to ensure that the questions for a student's two comprehensive exams are distinct and without duplication. These exams and committees will be monitored by the Graduate Committee.
• Earth Sciences: Programs	(d) The comprehensive examinations will have a take-home format. The exam will be
• Earth Sciences: Courses	

Economics: Graduate Faculty

• Economics: Programs

• Economics: Courses

Faculty of Education: Graduate Faculty

• Education: Programs

• Education: Courses

Faculty of Engineering: Programs of Study Overview

Civil and Environmental Engineering (CEE): Graduate Faculty

• CEE: Areas of Specialization

• CEE: Courses

Electrical Engineering: Graduate Faculty

• Electrical Engineering: Areas Of Specialization

• Electrical Engineering: Courses

Engineering Materials: Graduate Faculty

• Engineering Materials: Areas of Specialization

• Engineering Materials: Courses

Industrial and Manufacturing Systems Engineering (IMSE): Graduate Faculty

• IMSE: Areas of Specialization

given to the student seven (7) days before it is due. The students will be given three (3) questions and must answer two (2) of the questions.

(e) Once a written comprehensive examination is submitted to the Comprehensive Examination Committee, the Committee has up to four weeks to schedule an oral defense meeting. At the end of the oral defense, a grade of pass or fail will be assigned by the Committee based on both components. Individual Committee members may submit written feedback to the student. In the event that a student fails the comprehensive examination, the Committee is required to provide a written explanation within five (5) working days.

(f) If a student fails a comprehensive examination, he or she may retake the examination once only at the discretion of the Head of the Department and the Dean of Graduate Studies and Research.

(g) Students failing a comprehensive exam after a second attempt will be required to withdraw from the program.

(h) Students cannot move on to another comprehensive exam until one comprehensive exam has been successfully completed.

(i) The student has a right to appeal a failed comprehensive exam by sending a written letter to the Graduate Committee, detailing the reason(s) for the appeal.

Dissertation Proposal

The dissertation proposal should be a concise document of no more than 20 pages that discusses: the central research topic of the dissertation; the significance and advancement research literature; the theoretical framework guiding the research; proposed research methods; a plan and schedule for completion of the thesis; the feasibility of the research project; and ethical issues raised by the research. The grant proposal format mandated by such major funding agencies as the Social Sciences and Humanities Research Council or the Canadian Institutes for Health Research can be used as a standard format for the proposal.

The dissertation proposal must be approved at a meeting of the doctoral committee before the research can proceed. The purpose of the meeting is to reach an agreement that the research is well-designed, feasible, and appropriately grounded in the relevant research literature. All doctoral students are required to comply with the ethical principles, values, and standards of the Canadian Sociology and Anthropology Association's Code of Ethics. A proposal for doctoral research involving human subjects must be approved by the University of Windsor Ethics Review Board before dissertation research can begin.

Dissertation Research

The dissertation is normally a book-length manuscript that makes an original contribution to knowledge. The dissertation should display a sophisticated awareness of the theoretical, methodological, and practical choices made during the research process and the implications of the research.

Dissertation research and writing processes vary significantly, depending on the methods used and preferences in working style. The student and supervisor should meet often during the research process, reviewing written work at regular intervals. The full doctoral committee shall meet for an assessment of progress at least twice a year.

The dissertation research process culminates with an oral defence. The doctoral committee will recommend to the candidate when the thesis is ready to defend. An

- IMSE: Courses

Mechanical Engineering:
Graduate Faculty

- Mechanical Engineering:
Areas of Specialization

- Mechanical Engineering:
Courses

English: Graduate Faculty

- English: Programs

- English: Courses

Environmental Science
(GLIER): Graduate Faculty

ES: Programs

ES: Courses

History: Graduate Faculty

- History: Programs

- History: Courses

Faculty of Human Kinetics:
Graduate Faculty

- Kinesiology: Programs

- Kinesiology: Courses

Mathematics and Statistics:
Graduate Faculty

- Mathematics and Statistics:
Programs

- Mathematics and Statistics:
Courses

examiner from outside the university will be selected by the doctoral committee for the final defence of the dissertation, subject to the approval of the Department Head and the Dean of Graduate Studies and Research. The external examiner must be a nationally or internationally recognized expert in the area of the candidate's research. The external examiner does not participate in the direction of the research project, but appraises the dissertation and participates in the final oral examination.

THE MASTER OF ARTS DEGREE

Admission Requirements

1) Applicants with an honours degree in Sociology or a related field may be admitted into the candidate year of the M.A. program provided they have an adequate background in social theory and methodology. Students will be expected to comply with the general University requirements for the Master's degree. (See 1.6.2)

2) Applicants without an honours degree in Sociology may be required to take additional courses. Besides meeting all the requirements for the Master's program in their second year, students will be expected to comply with the general University requirements. (see 1.6.2)

3) Students transferring into Sociology from another discipline and those with insufficient preparatory background may be required to take up to ten additional courses before proceeding into the candidate year. These may include: [48-210](#) or [48-310](#); two courses from [48-403](#), [48-404](#), [48-405](#), [48-406](#), [48-408](#) or [48-415](#) and six other courses at the 300 or 400 level, two of which may be outside the program. At least an overall B average must be maintained.

4) Applicants with a three-year degree in Sociology or a related discipline may be admitted into a two-year Master's program. Besides meeting all the requirements of the minimum one-year Master's program in their second or further years, students will be expected to comply with the general University requirements (see 1.6.2).

The Department's current admission criteria are as follows:

(a) B+/A- minimum grade point average;

(b) strong recommendations based on faculty observation of student's performance, work experience, or community involvement demonstrating clear commitment to and understanding of sociological concerns;

(c) applicant's background preparation and graduate faculty resources available in the area of specialization indicated on the application.

Students with an honours degree in Anthropology must take [02-250](#), [48-302](#), [48-308](#), and one course from [48-403](#), [48-404](#), [48-405](#), [48-406](#), [48-408](#) or [48-415](#), or the equivalent. At least an overall B average must be maintained. Students with an honours degree in Criminology must take one course from [48-403](#), [48-404](#), [48-405](#), [48-406](#), [48-408](#) or [48-415](#), or the equivalent. At least an overall B average must be maintained. Students with an honours degree in Family and Social Relations must take one course from [48-403](#), [48-404](#), [48-405](#), [48-406](#), [48-408](#) or [48-415](#), or the equivalent. Students not having a sufficient background in statistics and/or social theory may be required to take [02-250](#) and [48-308](#) and/or [48-202](#) and [48-302](#). At least an overall B average must be maintained.

Program Requirements

MASTER OF ARTS - THESIS OPTION

The essential components of the Master of Arts degree in sociology are course work

Faculty of Nursing: Graduate Faculty

- Nursing: Programs
- Nursing: Courses

and a thesis. Students are expected to complete all 5 courses in two (2) consecutive semesters, [48-590](#) should be taken during the 3rd semester (i.e., Intersession/Summer Session).

Graduate students in the M.A. program will be expected to specialize in one of the five areas: Criminology; Family, Sex, and Gender; International Development; Migration, Racialization and Ethnicity; or Work. Course selections and course changes must be made in consultation with a faculty advisor (temporary or permanent).

Philosophy: Graduate Faculty

- Philosophy: Programs
- Philosophy: Courses

Students accepted directly into the candidate year will proceed towards the degree by achieving at least a B average in all six courses. The two required courses are: either [48-500](#) (Sociological Theory) or [48-501](#) (Classical Theories and Beyond), and either [48-505](#) (Quantitative Methods and Statistics) or [48-506](#) (Qualitative Methodology I). The other three courses must include at least one in the student's area of specialization. Faculty advisors may recommend particular courses to develop the skills necessary for thesis work. After completion of the courses, the focus shifts to the thesis which is an independent research project conducted in consultation with an advisor and thesis committee.

Physics: Graduate Faculty

- Physics: Programs
- Physics: Courses

MASTER OF ARTS - COURSE STREAM OPTION

The essential component of the Master of Arts degree in sociology involves course work only.

Graduate students in the M.A. program will be expected to specialize in one of the five areas: Criminology; Family, Sex, and Gender; International Development; Migration, Racialization and Ethnicity; or Work. Course selections and course changes must be made in consultation with a temporary faculty advisor.

Political Science: Graduate Faculty

- Political Science: Programs
- Political Science: Courses

Students accepted directly into the candidate year will proceed towards the degree by achieving at least a B average in all eight courses. The two required courses are: [48-500](#) (Sociological Theory), and either [48-505](#) (Quantitative Methods and Statistics) or [48-506](#) (Qualitative Methodology I). Six additional graduate courses are required including at least one (1) course in a declared area of specialization. Students have the option of taking one graduate course outside the department.

Psychology: Graduate Faculty

- Psychology: Programs
- Psychology: Courses

Notes:

1) Students not having a sufficient background in statistics and/or social theory may be required to take [02-250](#) and [48-308](#) and/or [48-202](#) and [48-302](#).

Social Work: Graduate Faculty

- Social Work: Programs
- Social Work: Courses

2) Seminar classes require active class participation. Instructors may therefore take into account class participation in grading students, in accordance with Senate regulations.

3) To change from one program to the other requires approval of the Graduate Committee.

Sociology: Graduate Faculty

- Sociology: Programs
- Sociology: Courses

Visual Arts: Graduate Faculty

- [Visual Arts: Programs](#)

- [Visual Arts: Courses](#)

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Graduate Calendar
Spring 2007

reface and Revisions

VISUAL ARTS: PROGRAMS OF STUDY

R RA S F ST
Alpha listing

Visual Arts (MFA)

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Biological Sciences: raduate

THE MASTER OF FINE ARTS DEGREE

The program provides two years of advanced education and creative development in the student's chosen areas of research. The program functions to stress studio production and the exploration of ideas and technical skills within a critical framework. Areas of research within the .F.A. program are ainting rawing, Sculpture, rintma ing, and ntegrated edia ideo, Sound, hotography and igital Arts .

Students with a B.F.A. degree from the niversity of indsor are encouraged to see their aster's degree elsewhere.

Admission Requirements

n addition to the re uirements set forth in . and . . for admission to the Faculty of raduate Studies and Research, applicants for admission to the aster of Fine Arts program must satisfy the following particular re uirements:

a have an honours B.A. with a ma or in isual Arts or Bachelor of Fine Arts degree from an approved college or university an applicant with a general B.A. with a ma or in isual Arts may be admitted with the stipulation that deficiencies will be made up

b present twenty slides of recent wor for evaluation by the departmental graduate acceptance committee

c have attained at least a B standing in undergraduate art courses

d have si courses in art history

e present transcripts of all university and or college level wor

f present three letters of recommendation.

An applicant who has graduated from a recogni ed professional institution may be re uired to apply for entry into a special program prere uisite to admission into the .F.A. program.

Students who are deficient in any of these re uirements may be as ed to register in appropriate undergraduate courses in order to satisfy the re uirements.

Applications for admission to the aster of Fine Arts program should be complete by February for Fall admission applications received after that date may not be considered.

Program Requirements

Faculty

Biological Sciences:
programs

Ten courses are required:
a four courses in Studio Practice

Biological Sciences:
Courses

b : Contemporary Issues

c : : Directed Individual Studies Studies

d Graduate Seminars

ette School of Business:
Graduate Faculty

e Early in the second term of their first year, students must participate in a first year .F.A. group exhibition. This exhibition will be evaluated by faculty members to determine the advisability of a student continuing in the program.

Business: programs

Business: Courses

Thesis (27-797): The thesis will consist of an exhibition of a body of original creative works within the candidate's area of research. The thesis will be planned with, and executed under the direction of the candidate's principal faculty advisor. This final exhibition should be regarded as the equivalent of the scholarly thesis of an academic discipline.

Chemistry and Biochemistry:
Graduate Faculty

Chemistry and Biochemistry:
programs

Committees:

Chemistry and Biochemistry:
Courses

a Guidance Committee: Each student will choose a guidance committee, approved by the Visual Arts Graduate Program Committee, at the beginning of the second term of his or her master's program. This committee will meet with the student periodically throughout the time required to complete the .F.A. program and to assess his/her work and progress through the program.

Communication Studies:
Graduate Faculty

Communications Studies:
programs

Communciation Studies:
Courses

b Thesis Defence Committee: This committee will assess the student's thesis exhibition, conduct the oral examination, decide if the .F.A. degree should be awarded and determine the thesis grade. The thesis committee will be constituted as follows: a member of the graduate faculty appointed by the Dean of Graduate Studies and Research serving as a non voting chair, the student's principal advisor and two additional faculty members, one of whom will not have been a member of the student's guidance committee. In addition a professional artist or artist educator not from the University of Windsor or the Windsor area will be chosen as an external member of the committee. The student will choose the last three members of this committee with the approval of the Visual Arts Graduate Program Committee and subject to the approval of the Executive Committee of the Faculty of Graduate Studies and Research.

Computer Science: Graduate
Faculty

Computer Science:
programs

Computer Science: Courses

arth Sciences: Graduate
Faculty

Examination and Thesis Requirements:

a a solo exhibition of the completed creative thesis acceptable to the student's thesis committee

b a written and photographic documentation of the thesis to be retained by Visual Arts

c a formal oral defense of the thesis before the student's thesis committee

arth Sciences: programs

arth Sciences: Courses

[conomics: raduate Faculty](#)

[conomics: rograms](#)

[conomics: Courses](#)

d written support document given to each member of the Thesis Committee two wee s prior to the scheduled defense.

Residence Requirements: The .F.A. program will re uire a minimum of two academic years four terms . Transfer credits will be evaluated and may be accepted.

[Faculty of ducation:](#)
[raduate Faculty](#)

or on an .F.A. degree should ordinarily be completed within three consecutive years after a student s enrollment.

[ducation: rograms](#)

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Faculty of Nursing: Graduate Faculty

Nursing: Programs

Nursing: Courses

Philosophy: Graduate Faculty

Philosophy: Programs

Philosophy: Courses

Physics: Graduate Faculty

Physics: Programs

Physics: Courses

Political Science: Graduate Faculty

Political Science: Programs

Political Science: Courses

Psychology: Graduate Faculty

Psychology: Programs

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Social Work: Graduate Faculty

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Sociology: Graduate Faculty

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